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Publications of the Southeastern Forest Experiment Station

1959—1963

compiled by Hilda J. Brown

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CURRENT SERIAL RECORDS

Forest Service - U.S. Department of Agriculture
Southeastern Forest Experiment Station
Asheville, North Carolina

Publications of the

Southeastern Forest Experiment Station

1959—1963

compiled by Hilda J. Brown

ADAMS, H. E., and SCHOCH, M. S.
1959. 1958 forest fires and fire danger in Connecticut, Kentucky, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Vermont, Virginia, and West Virginia. U. S. Forest Serv. Southeast. Forest Expt. Sta. (Eleven separate reports containing tables and graphs analyzing forest fires and fire danger.)

_____ and SCHOCH, M. S.
1960. 1959 forest fires and fire danger in Connecticut, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia. U. S. Forest Serv. Southeast. Forest Expt. Sta.
(Thirteen separate reports containing tables and graphs analyzing forest fires and fire danger.)

_____ and SCHOCH, M. S.
1961. 1960 forest fires and fire danger in Connecticut, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia. U. S. Forest Serv. Southeast. Forest Expt. Sta.
(Twelve separate reports containing tables and graphs analyzing forest fires and fire danger.)

_____ and SCHOCH, M. S.
1962. 1961 forest fires and fire danger in Connecticut, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia. U. S. Forest Serv. Southeast. Forest Expt. Sta.
(Twelve separate reports containing tables and graphs analyzing forest fires and fire danger.)

_____ and SCHOCH, M. S.
1963. 1962 forest fires and fire danger in Connecticut, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia. U. S. Forest Serv. Southeast. Forest Expt. Sta.
(Twelve separate reports containing tables and graphs analyzing forest fires and fire danger.)

ALLEN, P. H.
1960. Scorch and mortality after a summer burn in loblolly pine. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 144, 2 pp.
(Converging lines of fire resulted in severe crown scorch; mortality was largely confined to trees less than 8 inches in d.b.h.)

_____ 1961. Florida longleaf pine fail in Virginia. Jour. Forestry 59: 453-454, illus.
(Five-year results show that survival of longleaf pine of local (Virginia) origin best but differences in height growth among sources were not as pronounced.)

_____ 1961. Natural selection in loblolly pine stands. Jour. Forestry 59: 598-599.
(Natural selection may be quite rigid for growth before artificial selection by forest tree breeders begins.)

_____ 1962. Black willow dominates baldcypress-tupelo swamp eight years after clear cutting. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 177, 2 pp.
(After fall and winter high-load logging, the new stand was dominated by black willow.)

_____ and TROUSDELL, K. B.
1961. Loblolly pine seed production in the Virginia-North Carolina coastal plain. Jour. Forestry 59: 187-190, illus.
(Preharvest release improved seed production and percentage of sound seed. Stand age and density are important factors affecting seed production.)

ALLEN, R. M., and McGREGOR, W. H. D.
1962. Seedling growth of three southern pine species under long and short days. Silvae Genetica 11(2): 43-45.
(Shortleaf pine seedlings grew similar to loblolly pine under short days, but under long days showed differences. Longleaf pine seedlings showed no differences attributable to geographic source.)

ALTOBELLIS, A. T., and COOPER, R. W.
1963. Moisture content of gallberry and palmetto during a dry period. U. S. Forest Serv. Fire Control Notes 24: 10.
(Drought conditions during fall of 1961 did not significantly lower the moisture content of plants, as compared with 1959 and 1960, when normal rainfall occurred.)

AMMAN, G. D.
1961. Predator introductions for control of the balsam woolly aphid on Mt. Mitchell, North Carolina. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 153, 2 pp.
(Summarizes introduction of foreign predators into Mt. Mitchell area during 1959 and 1960.)

_____ 1962. Seasonal biology of the balsam woolly aphid on Mt. Mitchell, North Carolina. Jour. Econ. Ent. 55: 96-98, illus.
(Observations of aphid development were made at about 14-day intervals. Some aphids completed three generations, but most completed only two.)

AMMAN, G. D.
1963. A new distribution record for the balsam twig aphid. Jour. Econ. Ent. 56: 113.
(Mindarus abietinus found on Fraser fir in North Carolina.)

_____ and BERRY, C. R.
1963. Insects not a cause of post-emergence chronic tipburn of white pine in eastern Tennessee. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-2, 3 pp.
(White pine trees kept free of insects were compared with check trees but revealed no difference in recovery from tipburn symptoms.)

ANDERSON, W. C.
1960. The small forest landowner and his woodland. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 114, 15 pp., illus.
(Describes the individual landowners, how they use their forest land, and their attitudes toward forestry.)

_____
1961. A method of appraising pine sawtimber in South Carolina. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 122, 15 pp., illus.
(Prices of individual tracts differ from the average because of variation in volume per tree, distance to mill, and geographic location. These factors are used in a simple appraisal method.)

ASHER, W. C.
1963. Effects of 2-chloroethyltrimethylammonium chloride and 2, 4-dichlorobenzyltributyl phosphonium chloride on growth and transpiration of slash pine. Nature 200: 912.
(Soil applications of CCC reduced both transpiration and growth of 1-year-old slash pine.)

_____
1963. Squirrels prefer cones from fertilized trees. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-3, 1 p.
(Squirrels ate 11.7 percent of the cones on fertilized trees but only 1.3 percent of the cones on unfertilized slash pine.)

AVERY, GENE
1959. An all-purpose cruiser stick. Jour. Forestry 57: 924-925, illus.
(A modified Biltmore stick for point-sampling, measuring diameters and heights of standing trees, and log scale.)

_____
1959. Suggestions for increasing society membership. Photogram. Engin. 25: 275-278.
(Proposals for enlarging membership of American Society of Photogrammetry through a systematic canvass of engineers, foresters, geologists, and other scientists.)

_____
1960. A checklist for airphoto inspections. Photogram. Engin. 26: 81-84, illus.
(Systematic technical inspections of contract aerial photography: photo scale, print overlap, evaluations on each flight line.)

AVERY, GENE
1960. Identifying southern forest types on aerial photographs. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 112, 12 pp., illus.
(Main differences between panchromatic and infrared photographs from the standpoint of timber type mapping.)

BARBER, J. C.
1959. The Georgia seed certification program. Fifth South. Conf. on Forest Tree Improvement Proc. 1959: 84-86.
(Describes work of Georgia Crop Improvement Association in improving quality of agricultural seeds and procedures for maintaining high purity and quality in seed of forest tree strains.)

_____ 1961. Growth, crown form, and fusiform rust resistance in open pollinated slash pine progenies. Sixth South. Conf. on Forest Tree Improvement Proc. 1961: 97-104.
(Significant differences between 8-year-old progenies were found for traits such as height, diameter, rust infection, stem crook, crown width, and natural pruning.)

_____ 1962. Tree seed certification programs and needs of Georgia. Ann. Meet. West. Reforestation Coordinating Com. Proc. 1961: 7-10.
(A description of the program and benefits expected.)

_____ and DARBY, S. P.
1959. Georgia's seed certification program. Jour. Forestry 57: 125-126.
(Reviews steps in development of and procedures for certification of forest tree seed by Georgia Crop Improvement Association.)

_____ and DARBY, S. P.
1959. Seed history made in Georgia. Amer. Forests 65(1): 38-40, 56.
(Describes steps in development of and procedures for certification of forest tree seed by Georgia Crop Improvement Association.)

_____ and VANHAVERBEKE, D. F.
1961. Growth of outstanding nursery seedlings of Pinus elliottii Engelm. and Pinus taeda L. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 126, 12 pp., illus.
(After 4 years, slash and loblolly pine seedlings in Georgia, selected in nursery beds for vigor, were taller than a similar number of control seedlings from the same beds. Rust infection, survival percent, and tree form were about the same for each group.)

_____ and ZOBEL, B. J.
1959. Comments on genetic variation within geographic ecotypes of forest trees and its role in tree improvement. Jour. Forestry 57: 439-441.
(Describes factors in addition to clonal and one- or two-parent progeny tests that indicate intraspecific variation in forest tree species.)

BARNES, R. L.

1959. Formation of allantoin and allantoic acid from adenine in leaves of Acer saccharinum L. Nature 184(4703): 1944.
(Allantoic acid is a translocatory and metabolic form of nitrogen in silver maple.)

1959. The study of mineral requirements of excised tree roots. Duke Univ. School Forestry Symposium on Mineral Nutrition of Trees 1959: 39-45.
(Excised root techniques, uses for nutritional studies, nitrogen and sulfur isolated root work.)

1961. Adenine catabolism in pine embryos and tissue cultures. Bot. Gaz. 123(2): 141-143.
(The major portion of the radioactivity from labeled adenine was recovered in hypoxanthine and inosine.)

1961. Studies of ureide synthesis in trees. (Abs.) Assoc. South. Agr. Workers Proc. 1961: 229.
(Results indicate ureide synthesis by purine catabolism and by synthesis from simple molecules with intermediate formation of purines or closely related precursors.)

1962. Formation of γ-guanidinobutyric acid in pine tissues. Nature 193(4817): 781.
(A large amount of arginine is converted to γ-guanidinobutyric acid in pine tissues.)

1962. Glutamine synthesis and translocation in pine. Plant Physiol. 37(3): 323-326, illus.
(Glutamic acid served as a precursor of glutamine in isolated roots of pond pine and in loblolly pine seedlings, apparently via the glutamine synthetase reaction.)

1962. Ornithine-2-C^{14} metabolism in loblolly pine needles. Forest Sci. 8: 284-287.
(The main free amino acids formed from ornithine-2-C^{14} were glutamic acid, glutamine, proline, and citrulline; the main amino acids found to be labeled in the protein fractions were proline, arginine, and glutamic acid.)

1962. Ureide synthesis and translocation in silver maple seedlings. Canad. Jour. Bot. 40(4): 563-572.
(Ureide synthesis was demonstrated from Carbon-14 labeled adenine, glycine, formate, urea, and bicarbonate.)

1963. Nitrogen metabolism in relation to flowering in pine. (Abs.) Assoc. Southeast. Biol. Bul. 10(2): 23.
(Nitrogen composition, metabolism, and translocation in relation to flowering and fruiting in loblolly pine.)

BARNES, R. L.
1963. Nitrogen transport in the xylem of trees. Jour. Forestry 61: 50-51.
(Nitrogen is transported from the roots to the tops of trees mainly as specific organic compounds in the xylem sap.)

_____
1963. Organic nitrogen compounds in tree xylem sap. Forest Sci. 9: 98-102.
(The free amino acids and ureides occurring in the xylem saps of 60 species of trees are listed and the implications of the study are discussed.)

_____ and NAYLOR, A. W.
1960. Studies on the ornithine cycle in roots and callus tissues of Pinus serotina and Pinus clausa. Bot. Gaz. 121(2): 63-69.
(Pond pine was more active than sand pine in metabolizing ornithine-2-C^{14}, $NaHC^{14}O$, and sodium formate-C^{14} via citrulline and arginine.)

_____ and NAYLOR, A. W.
1961. Studies on the formation of β-alanine by pine embryos and callus tissues from aspartic acid, spermine, spermidine, and pyrimidines. (Abs.) Plant Physiol. 36 (Sup.): 18.
(Pyrimidine catabolism provides important mechanism of β-alanine synthesis in all pine tissues examined.)

_____ and NAYLOR, A. W.
1961. Utilization of radioactive ornithine by germinating embryos of longleaf and slash pines. Forest Sci. 7: 130-135.
(When DL-ornithine-2-C^{14} is administered to embryos of longleaf and slash pine, C^{14} appears in citrulline and arginine.)

_____ and NAYLOR, A. W.
1962. Formation of β-alanine by pine tissues supplied with intermediates in uracil and orotic acid metabolism. Plant Physiol. 37(2): 171-175.
(Pyrimidine catabolism is an important mechanism of β-alanine synthesis in the pine tissues examined.)

BECK, D. E.
1962. Yellow-poplar site index curves. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 180, 2 pp.
(Separate site index curves are shown for the Southern Appalachian Mountains and the Virginia-Carolina Piedmont.)

_____
1963. Cubic-foot volume tables for yellow-poplar in the Southern Appalachians. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-16, 4 pp.
(Total cubic-foot volume outside bark and cubic-foot volumes inside and outside bark to 4.0- and 8.0-inch top d.o.b. by diameter and total height.)

BEGA, R. V., CHILDS, T. W., ROTH, L. F., HODGES, C. S., Jr., and HEPTING, G. H.
1963. Symposium on root diseases of forest trees. Phytopathology 53(10): 1120-1136.
(Review of four serious root diseases--Fomes annosus root rot, Poria weirii root rot, Phytophthora cinnamomi on Douglas-fir, and black root rot of pine.)

BENGTSON, G. W.
1963. Slash pine selected from nurserybeds: 8-year performance record. Jour. Forestry 61: 422-425.
(After 8 years in the field under fairly typical "flatwoods" plantation conditions, outstanding slash pine seedlings selected from nurserybeds showed a mean height superiority of 23 percent over average stock.)

_____ CLEMENTS, R. W., LARSON, P. R., and SCHOPMEYER, C. S.
1959. Intensive gum extraction methods show promise for short-term naval stores leases. Forest Farmer 18(9): 8, 16-18.
(Stronger acid, larger bark hack, and 2-quart cups particularly suited to intensive work.)

_____ LARSON, P. R., CLEMENTS, R. W., and SCHOPMEYER, C. S.
1959. New short-season method produces good yields for gum farmers. AT-FA Jour. 21(5): 5-7. Also in Naval Stores Rev. 68(11): 6-7.
(Recommends use of 65-percent acid, the $1\frac{1}{4}$-inch bark hack, and 2-quart cups for intensive work during a 2-year period.)

_____ and SCHOPMEYER, C. S.
1959. A gum yield table for 3/4-inch acid-treated streaks on slash pine. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 138, 2 pp.
(Gum yields for method of chipping that is becoming widespread in naval stores region.)

_____ and VOIGT, G. K.
1962. A greenhouse study of relations between nutrient movement and conversion in a sandy soil and the nutrition of slash pine seedlings. Soil Sci. Soc. Amer. Proc. 26(6): 609-612.
(Virtually all NH_4NO_3 and KCl applied to the soil surface was leached from the upper 12 inches of the profile. Fertilized seedlings transpired from 30 to 80 percent more water than controls, yet their water use per gram of dry matter produced was 25 to 50 percent less.)

BENNETT, F. A.
1959. International $\frac{1}{4}$-inch board foot volume tables for old-field slash pine plantations in the middle coastal plain of Georgia. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 126, 2 pp.
(Board-foot volume tables by diameter, total height, and merchantable height classes to 6- and 7-inch minimum top diameters inside bark.)

_____
1960. Height growth pattern and thinning of slash pine (Pinus elliottii var. elliottii). Jour. Forestry 58: 561-562, illus.
(Relation of increasing crown area to thinning response. Emphasizes role of height growth in crown area increase.)

BENNETT, F. A.

1960. Spacing and early growth of planted slash pine. Jour. Forestry 58: 966-967.
(Competition developed during fifth year at a density of 500-550 trees per acre; the effect of stand density intensified in the sixth and seventh years.)

1961. Silvical characteristics of southern magnolia. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 139, 9 pp., illus.
(Extent and climate of botanical range, edaphic, and physiographic site conditions, reproduction and growth habits, ecology, plant and animal pests, and response to management.)

1963. Growth and yield of planted conifers in relation to initial spacing and stocking. Soc. Amer. Foresters Proc. 1962: 22-26.
(Yields from unthinned stands of slash pine, loblolly pine, longleaf pine, eastern white pine, and red pine show a similarity in relation to spacing.)

1963. Growth and yield of slash pine plantations. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Paper SE-1, 23 pp.
(Height and diameter growth patterns of field- and forest-planted slash pine are illustrated. Yields as correlated with age, site, and stand density from three formal analyses are tabulated and discussed.)

McGEE, C. E., and CLUTTER, J. L.

1959. Yield of old-field slash pine plantations. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 107, 19 pp., illus.
(Cubic foot volume and yield tables for old-field slash pine plantations in the Carolina sandhills and middle coastal plain of Georgia.)

BERRY, C. R.

1959. Root characteristics of healthy and needle-blighted eastern white pines in West Virginia and Tennessee. (Abs.) Phytopathology 49(9): 534.
(There were more dead tips and dead laterals on roots of blighted than healthy trees, but no fungus pathogen was isolated.)

1961. Observations on white pine needle blights in Tennessee and West Virginia. (Abs.) Phytopathology 51(9): 642.
(Two physiogenic needle blights of white pine were differentiated on the basis of symptoms and time of injury.)

1961. White pine emergence tipburn, a physiogenic disturbance. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 130, 8 pp.
(Evidence indicates that emergence tipburn of white pine is caused by an atmospheric abiotic agent, such as ozone.)

BERRY, C. R., and HEPTING, G. H.
1959. Pitch canker of southern pines. U. S. Dept. Agr. Forest Pest Leaflet 35, 3 pp., illus.
(Describes hosts, symptoms, fungus causal agent, and control of this canker disease that results in heavy gum flow and pitch soaking of the wood.)

_____ and RIPPERTON, L. A.
1962. Ozone, a possible cause of white pine emergence tipburn. (Abs.) Phytopathology 52(8): 724.
(Emergence tipburn was observed in the field following recorded ozone concentrations as high as 6.5 pphm. Similar symptoms were produced on greenhouse plants using artificially produced ozone at the same levels.)

_____ and RIPPERTON, L. A.
1963. Ozone, a possible cause of white pine emergence tipburn. Phytopathology 53(5): 552-557.
(Emergence tipburn was observed in the field following recorded ozone concentrations as high as 6.5 pphm. Similar symptoms were produced on greenhouse plants using artificially produced oxidant at the same levels.)

_____ and THOMPSON, G. E.
1961. Extension of range and a new host for Cristulariella pyramidalis. U. S. Dept. Agr. Plant Dis. Rptr. 45(2): 152.
(A fungus that causes premature defoliation of some species of maples was noted for the first time in Asheville, N. C.)

BETHUNE, J. E.
1960. Distribution of slash pine as related to certain climatic factors. Forest Sci. 6: 11-17, illus.
(Discriminant function analysis of relation of monthly averages of temperature and precipitation by seasons and average length of frost-free period to areas within range of natural distribution and areas outside of, but adjacent to, slash pine range.)

_____
1963. Introduction of loblolly pine south of its natural range in Florida. Jour. Forestry 61: 782, 784.
(After 6 years, survival and growth compare favorably with those of other planted and exotic pines.)

_____
1963. Pine tip moth damage to planted pines in south Florida. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-7, 4 pp.
(South Florida slash pine is less susceptible to pine tip moth than either typical slash pine or loblolly pine.)

_____
1963. Ridging--low-cost technique for increasing growth on wet flatwoods sites. Forest Farmer 23(2): 6-7, 18.
(After 3 years, South Florida slash pine planted on ridges were 63 percent taller than trees on unprepared sites. Ridging increases height growth of typical slash pine by 40 percent.)

_____ and HEPTING, G. H.
1963. Pitch canker damage to South Florida slash pine. Jour. Forestry 61: 517-522.
(Observations of incidence, rate of spread, and effects on tree growth and mortality.)

BETHUNE, J. E., and LeGRANDE, W. P.
1960. Profitable small-forest management--a case history. Forest Farmer 20(1): 12-13, 38, illus.
(Reports 10 years of farm woodlot operations on the Santee Experimental Forest.)

_____ and ROTH, E. R.
1960. Fifth year results of loblolly pine seed source planting in Georgia. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 145, 2 pp.
(Seedlings of northern sources grew slower than those of southern origin. Infection by southern fusiform rust was related to seed origin but not temperature zone.)

_____ and ROTH, E. R.
1960. Source of seed affects growth of longleaf pine--fifth year results. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 146, 2 pp.
(Discusses seedling height, seedling survival and branch length, time in grass stage, percent of trees forked, and percent infected by brownspot needle blight.)

BINGHAM, R. T., SQUILLACE, A. E., and WRIGHT, J. W.
1960. Breeding blister rust resistant western white pine. Silvae Genetica 9, Heft 2: 33-41.
(Narrow-sense heritability was 68 percent and broad-sense heritability 87 percent for rust resistance as estimated by the method of expectation mean squares for four different groupings of related progenies.)

BOIS, P. J.
1959. Gray-brown chemical stain in southern hardwoods. Coop. Pub. Ga. Forestry Comn. and U. S. Forest Serv. Southeast. Forest Expt. Sta. Forest Util. Serv. Release 21, 4 pp., illus.
(A practical paper on identification, causes, and treatment of a common gray-brown chemical stain of certain hardwoods.)

_____
1959. Wood moisture content in homes ... seasonal variations in the Southeast. Forest Prod. Jour. 9(11): 427-430.
(Reports on seasonal, yearly, and within-home variations of moisture content that wood might undergo in a dwelling in the Southeast.)

_____
1961. Interior and exterior plywood. Coop. Pub. Ga. Forestry Comn. and U. S. Forest Serv. Southeast. Forest Expt. Sta. Forest Util. Serv. Release 24, 2 pp., illus.
(Describes for the layman differences in exterior and interior plywood, including typical glues used and grades available.)

_____
1961. Sawdust and bark as supplements to Georgia soils. Coop. Pub. Ga. Forestry Comn. and U. S. Forest Serv. Southeast. Forest Expt. Sta. Forest Util. Serv. Release 23, 2 pp.
(Decomposed sawdust or bark can provide humus and organic materials to improve heavy clay soils.)

BOIS, P. J., FLICK, R. A., and GILMER, W. D.
1962. A study of outside storage of hardwood pulp chips in the Southeast. TAPPI 45(8): 609-618, illus.
(Oak and gum pulp chips stored in the open for 6 months were measured for specific gravity, moisture content, fungus attack, and effect of chip deterioration on pulp quality.)

_____ and WHITE, J. F.
1962. Wood-using industries in Georgia--a utilization report and directory. Coop. Pub. Ga. Forestry Comn. and U. S. Forest Serv. Southeast. Forest Expt. Sta., 142 pp., illus.
(A county by county wood-industry directory combined with a detailed wood-industry production report.)

BOYCE, J. S., Jr.
1959. Brown spot needle blight on eastern white pine. U. S. Dept. Agr. Plant Dis. Rptr. 43(3): 420.
(Scirrhia acicola, the cause of needle blight on longleaf pine, also causes dieback and premature shedding of eastern white pine needles.)

_____ 1959. Oak wilt spread in control-treated and untreated counties in the Southern Appalachians. Jour. Forestry 57: 660-661.
(Summer felling and spraying wilting oaks with mixture of BHC and pentachlorophenol apparently reduced overland wilt spread.)

_____ 1959. Root rot in pine plantations. Forest Farmer 19(3): 8, 17-18, illus.
(Root rot caused by Fomes annosus has damaged many thinned stands of eastern white and slash pine. Methods for reducing stand infection are discussed.)

_____ 1960. An appraisal of Fomes annosus in Scotland. Forest Farmer 20(3): 10, 17.
(Observations on stump treatments to reduce initial stand infection and incidence of butt and root rot in various conifers planted in one area.)

_____ 1960. Distribution of Ceratocystis fagacearum in roots of wilt-infected oaks in North Carolina. Phytopathology 50(10): 775-776.
(Only one root-graft infection court was found by excavating and culturing 46 infected roots of 23 wilting oaks.)

_____ 1960. Rot and rust. Young trees face grim future unless research can find successful control. Amer. Tree Farmer & Forestry Digest, p. 8. July.
(Describes fusiform rust and Fomes annosus and the research needed to develop better control methods for them.)

_____ 1961. Symptoms in relation to infection pattern in white oak. U. S. Dept. Agr. Plant Dis. Rptr. 45(5): 386-387.
(Branch dieback and water-soaked leaves of white oaks are good field symptoms in the diagnosis of oak wilt.)

BOYCE, J. S., Jr.
1962. Fomes annosus in white pine in North Carolina. Jour. Forestry 60: 553-557, illus.
(Annosus root rot causes butt rot, killing, or windthrow of white pines in natural and planted stands, ranging from 22 to 100 years in age.)

1962. Greenhouse inoculations of coniferous seedlings with Fomes annosus. (Abs.) Phytopathology 52(1): 4.
(A relatively low percentage of infection resulted from inoculating five species of pines with Fomes annosus.)

and SPEERS, C. F.
1960. Oak dieback in Virginia in 1959. U. S. Dept. Agr. Plant Dis. Rptr. 44(5): 351.
(The oak pit-making scale Asterolecanium sp. and the fungus Dothiorella quercina were closely associated with extensive dieback of chestnut and white oaks in western Virginia.)

BRENDER, E. V.
1960. Growth predictions for natural stands of loblolly pine in the lower Piedmont. Ga. Forest Res. Council Rpt. 6, 7 pp., illus.
(Analyses of 5- to 12-year growth in relation to age, site, and stand density on 202 stands comprising 1,552 acres on the Hitchiti Experimental Forest.)

1960. Progress report on control of honeysuckle and kudzu. Thirteenth Ann. South. Weed Conf. Proc. 1960: 187-193.
(Behavior and control of honeysuckle and kudzu.)

1961. Control of honeysuckle and kudzu. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 120, 9 pp., illus.
(Discusses ecology and control of honeysuckle and kudzu in Piedmont Georgia.)

1961. Pruning open-grown loblolly pine. South. Lumberman 203 (2537): 134-136, illus.
(Loblolly pine should be pruned while trees are small so that early, fast rate of diameter growth is checked, knotty core kept to a minimum, and costs minimized.)

1961. Residual saplings in clearcut and planted stands. Ga. Forest Res. Council Rpt. 4, 4 pp., illus.
(When managing loblolly pine by clearcutting and planting, long-suppressed saplings should be cut because of slow growth and interference with growth of the new pine crop.)

and DAVIS, L. S.
1959. Influence of topography on the future composition of lower Piedmont forests. Jour. Forestry 57: 33-34, illus.
(Rate of hardwood invasion into loblolly pine stands in the Georgia Piedmont is strongly influenced by aspect, degree of slope, and position on slope.)

BRENDER, E. V., and McCOMB, W. H.
1962. Farming the woods. Ga. Forest Res. Paper 12, 4 pp., illus.
(A case study of a 29-acre woodlot in piedmont Georgia in which 1 acre is clear cut and planted each year.)

_____ and ROMANCIER, R. M.
1960. Glaze damage in loblolly pine plantations. South. Lumberman 201(2513): 168, illus.
(Loblolly pine plantations in areas subject to glaze should be thinned lightly and frequently from below, or cut selectively.)

BROWN, H. J.
1960. Publications of the Southeastern Forest Experiment Station, 1921-1958. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 117, 115 pp.
(An alphabetical author list of 1700 research reports by members of Station staff and cooperators from 1921 through 1958.)

BRYAN, M. B., and McCLURE, J. P.
1962. Board-foot and cubic-foot volume computing equations for Southeastern tree species. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 145, 10 pp., illus.
(Diameter inside bark at top of saw-log portion of tree is used in addition to d.b.h., cordwood length, and saw-log length to improve accuracy of volume predicting equations.)

BRYAN, W. C.
1960. Losses from defect in Piedmont hardwoods. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 109, 31 pp., illus.
(Epicormic and adventitious branching and small knots are the most prevalent defects, probably because of small average size of trees.)

_____
1961. How good are the Piedmont hardwoods? Forest Farmer 20(9): 8-9, illus.
(Major hardwood defects can be reduced with proper management and harvesting, and if stands are given adequate protection from fire and overgrazing.)

_____ and ZAK, BRATISLAV
1961. Synthetic culture of mycorrhizae of southern pines. Forest Sci. 7: 123-129, illus.
(A pure-culture technique for mycorrhizal synthesis demonstrated mycorrhizal formation by eight fungi in association with roots of southern pines.)

_____ and ZAK, BRATISLAV
1962. Additional syntheses of mycorrhizae on shortleaf and loblolly pines. Forest Sci. 8: 384.
(An extension of the list of Hymenomycetes which have been found to form mycorrhizae on shortleaf, loblolly, slash, and longleaf pines.)

BURTON, G. W., and HUGHES, R. H.
1961. Effects of burning and 2,4,5-T on gallberry and saw-palmetto. Jour. Forestry 59: 497-500, illus.
(Best control of gallberry and saw-palmetto was obtained by burning in March and spraying in August with 2,4,5-T in water.)

BYRAM, G. M.
1959. Combustion of forest fuels. In Forest Fire: Control and Use, by Kenneth P. Davis. Chapter 3, pp. 61-89. New York.
(Discussion of the basic heat releasing process of combustion, its related factors, and its role in supplying the driving energy of fire behavior.)

1959. Forest fire behavior. In Forest Fire: Control and Use, by Kenneth P. Davis. Chapter 4, pp. 90-123. New York.
(Principles of fire behavior, with emphasis on large fires and various fuel and atmospheric mechanisms which influence rate of energy output.)

and MARTIN, R. E.
1962. Fire whirlwinds in the laboratory. U. S. Forest Serv. Fire Control Notes 23(1): 13-17, illus.
(Scale model fire whirlwinds can be produced and studied in specially designed cylindrical enclosures.)

CAMPBELL, R. A.
1959. Overrun in second-growth yellow-poplar. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 139, 2 pp.
(Bandmill overrun in Southern Appalachians by log grade and diameter class, International $\frac{1}{4}$-inch and Scribner Decimal C scales.)

1959. Tree grades give accurate estimate of second-growth yellow-poplar values. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 108, 14 pp., illus.
(Log and tree quality indices by size and grade; lumber and stumpage values given. Site differences recognized in values.)

1960. Does site affect grade yield? Soc. Amer. Foresters Proc. 1959: 50-53, illus.
(Although log grade is the most important single variable, site also affects lumber yields and values of both logs and trees.)

1961. Silvical characteristics of chestnut oak. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 138, 12 pp., illus.
(Extent and climate of botanical range, edaphic and physiographic site conditions, reproductive and growth habits, ecology, plant and animal pests, and response to management.)

1962. A guide to grading features in southern pine logs and trees. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 156, 23 pp., illus.
(Lists and illustrates the chief grading factors used in determining the quality of southern pine logs and trees.)

1962. Overruns--southern pine logs. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 183, 2 pp.
(Overrun based on green lumber tally of lumber cut on circle mills is given for Doyle, Scribner, and International $\frac{1}{4}$-inch log scales.)

CAMPBELL, R. A.
1962. Southern pine lumber grade yields. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 182, 2 pp.
(The percent of lumber expected in each lumber grade from each of the Forest Service standard log grades is given for longleaf and slash pine combined and loblolly and shortleaf combined.)

CAMPBELL, W. A.
1959. Littleleaf disease of shortleaf pine (Pinus echinata Mill.): Present status and future needs. (Abs.) IX Internatl. Bot. Cong. Proc. 2: 58-59.
(Present research emphasizes soil improvement and selection, and propagation of healthy shortleaf pines growing in severe littleleaf areas, and testing their progeny for resistance to the causal fungus Phytophthora cinnamomi.)

1961. Eastern tree seed laboratory. Forest Farmer 20(9): 14-16, illus.
(History of seed testing developments in the South and description of services available at Eastern Tree Seed Laboratory, Macon, Georgia.)

1961. South's new forest pest laboratory. Forest Farmer 21(1): 20, 28, illus.
(Describes facilities and program of new Forest Service biology center at the Research Triangle Park in North Carolina.)

1963. Clitocybe root rot. In Internationally dangerous forest tree diseases. U. S. Dept. Agr. Misc. Pub. 939, p. 9.
(Host, symptoms, effects, and range of Clitocybe root rot; also description of the fungus fruiting body.)

1963. Phytophthora spp. In Important forest diseases of mutual concern to member countries of the North American Forestry Commission. NAFC, FAO, pp. 55-57.
(Generalized discussion of three plant pathogenic species of Phytophthora, covering hosts, life histories, damage, and control measures.)

DARBY, S. P., and BARBER, J. C.
1962. Fusiform rust, an obstacle to the establishment of grafted slash and loblolly pine seed orchards. Ga. Forest Res. Paper 11, 5 pp.
(Grafts made in nursery beds or greenhouses offer a means of controlling rust and increasing the percentage of successful grafts.)

GOODING, G. V., Jr., and HAASIS, F. A.
1963. The occurrence of Phytophthora cinnamomi in Kentucky, North Carolina, Tennessee, and Virginia. U. S. Dept. Agr. Plant Dis. Rptr. 47(10): 924-926.
(Phytophthora cinnamomi, the fungus causing littleleaf disease of shortleaf pine, was isolated from soils in littleleaf areas in Tennessee and Kentucky. The fungus is also widely distributed in both diseased and littleleaf-free areas in the coastal plain and Piedmont of Virginia and North Carolina.)

CAMPBELL, W. A., and VERRALL, A. F.
1963. Phytophthora cinnamomi associated with Lawson cypress mortality in Louisiana. U. S. Dept. Agr. Plant Dis. Rptr. 47(9): 808.
(An experimental planting of Lawson cypress was wiped out by Phytophthora cinnamomi root rot. This fungus is widely distributed in the South in coastal plain soils.)

CARTER, M. C., and JONES, LeROY
1962. The effect of hydrogen peroxide on the germination of loblolly and slash pine seed. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 141, 12 pp., illus.
(A 48- to 96-hour soak in 1 percent hydrogen peroxide increased germination of both loblolly pine and slash.)

_____ and NAYLOR, A. W.
1959. The formation, in vivo, of a complex between 3-amino-1,2,4-triazole and a glycine-serine derivative. (Abs.) Plant Physiol. Proc. 34 (Sup.): 6.
(Unknown ninhydrin-sensitive compound appeared when normal bean plant tips were exposed to glycine-U-C^{14} and ATA, indicating a complex was formed between ATA and glycine and serine.)

_____ and NAYLOR, A. W.
1961. Metabolism of 3-amino-1,2,4-triazole-5-C^{14} in plants. Bot. Gaz. 122(2): 138-143, illus.
(Large quantities of substance accumulated in terminal growth as the principal metabolic product of ATA-5-C^{14} in the form of an unknown. ATA itself did not reach the terminal meristem.)

CECH, F. C., BARBER, J. C., and ZOBEL, B. J.
1962. Comments on "Who Wants Tree Seed Certification and Why?" Jour. Forestry 60: 208-210.
(Reviews seed certification programs and illustrates need for better methods of marketing tree seed.)

CHAIKEN, L. E., and NELSON, T. C.
1959. Site index curves for Piedmont Virginia pine. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 135, 2 pp.
(Relation of height and age expressed as site curves at an index age of 50 years for natural stands.)

CHAPPELLE, D. E.
1959. Guide to farm woodland management in coastal Georgia. Forest Farmer 18(4): 12, 14-16.
(Cost and returns from sawtimber, pulpwood, and naval stores operations during 7 years' management.)

_____
1962. Value growth of pine pulpwood on the George Walton Experimental Forest. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 140, 14 pp., illus.
(Isolates tree characteristics that are useful indicators of future value growth rate and demonstrates the application of financial maturity concepts to longleaf and slash pine pulpwood management.)

CLARK, E. W., and CHADBOURNE, D. S.
1962. A comparative study of the weight, and lipid and water content of the pink bollworm. Ann. Ent. Soc. Amer. 55: 225-228.
(Statistically no differences in these 3 measurements occurred between boll-reared nondiapause and diapause larvae but differences between boll-reared and square- and bloom-reared larvae did occur. As diapause larvae aged, weight and lipid content decreased but percent of water remained fairly constant. Larvae lived up to 33 months at 15° C., at which time their lipid content was depleted.)

_____ and RICHMOND, C. A.
1962. The effect of aqueous submersion on larval and pupal pink bollworm. Jour. Econ. Ent. 55: 167-169.
(Nondiapause and diapause larvae were submersed at 3 temperatures for increasing periods of time until 100 percent mortality was reached. The time required for mortality was inversely proportional to temperature. Both respiration and anaerobiosis were demonstrated.)

CLEMENTS, R. W.
1959. Gum naval stores. The Forest Farmer Manual 18(8): 105-109.
(Equipment and methods used in modern naval stores production are described.)

_____
1959. Possibilities of gum production in south Florida. Naval Stores Rev. 69(6): 8-9. Also in AT-FA Jour. 22(1): 8-9.
(Gum yield in south Florida found high enough for commercial production.)

_____
1959. Use of the advance streak. Naval Stores Rev. 68(10): 6-7. Also in AT-FA Jour. 21(4): 6.
(A bark streak treated with 50-percent acid, applied 30 days in advance of the regular chipping season, was found to give best yields.)

_____
1960. Manual, modern gum naval stores methods. U. S. Forest Serv. Southeast. Forest Expt. Sta., 29 pp., illus.
(The most efficient gum extraction methods are illustrated by photographs and drawings.)

_____
1961. Air temperature and gum yield. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 168, 2 pp.
(In Mississippi, longleaf pine produced 30 percent of the total yearly gum yield during 8 weeks in July and August. Trees should be worked more intensively in midsummer if streaks were missed early in the season.)

_____
1961. Profitable gum production from limited-face-height leases. Naval Stores Rev. 71(2): 6-7. Also in AT-FA Jour. 23(11): 12.
(In Mississippi, within the face height limitation of 54 inches, biweekly chipping with 1-inch streaks and 60 percent acid produced 6 percent more gum over a 3-year period than weekly chipping the same face height.)

CLEMENTS, R. W.
1961. Scrape yield from longleaf, slash greater than others. Naval Stores Rev. 71(6): 4-5, illus.
(For longleaf pine the proportion of scrape in total season's yield is 20 to 24 percent; in slash pine 1 to 8 percent. Scrape should be removed from tins as early as August to prevent wastage.)

1962. Louisiana pine forests produce liquid gold. Naval Stores Rev. 72(6): 4-6, 18.
(Yields were high enough to warrant commercial production.)

1962. Louisiana slash pine produce good gum yields. AT-FA Jour. 25(1): 4-5.
(Gum yields were comparable with those from other parts of the naval stores region.)

1963. Four years of gum production on pole timber. South. Lumberman 207(2585): 131-133.
(Intensive chipping--2 years on the front face and 2 years on the back face--is economically feasible and reduces face height on trees to be used for poles.)

CLUTTER, J. L.
1959. Suggestions for recording and processing direct seeding data. Direct Seeding in the South Symposium. Duke Univ. School Forestry 1959: 168-170.
(Discusses use of keysort and punched card methods and advantages of various systems.)

1960. Appropriate sampling designs for continuous forest inventory systems. Short Course in Continuous Inventory Control in Forest Mangt. Proc. Univ. Ga. School Forestry 1959: 162-168.
(Advantages and disadvantages of sampling schemes adaptable to CFI systems.)

1960. The use of medium-sized electronic computers in the processing of continuous forest inventory data. Short Course in Continuous Inventory Control in Forest Mangt. Proc. Univ. Ga. School Forestry 1959: 63-68.
(Procedures and advantages of medium-sized electronic computers for CFI data processing, using IBM 650 as example.)

1963. Compatible growth and yield models for loblolly pine. Forest Sci. 9: 354-371.
(Equation developed can be used to predict total per-acre production for various rotation ages and thinning regimes.)

COOK, C. W., and LEWIS, C. E.
1963. Competition between big sagebrush and seeded grasses on foothill ranges in Utah. Jour. Range Mangt. 16: 245-250.
(Control of sagebrush with 2,4-D results in improved soil moisture conditions and better grass growth.)

COOPER, R. W., SCHOPMEYER, C. S., and McGREGOR, W. H. D.
1959. Sand pine regeneration on the Ocala National Forest. U. S. Dept. Agr. Prod. Res. Rpt. 30, 37 pp., illus.
(Summary of studies on natural seed production, seedling survival, treatments for increasing natural and artificial regeneration.)

COPELAND, O. L., Jr., and McALPINE, R. G.
1962. Soil characteristics associated with spot die-out in loblolly pine plantations. Forest Sci. 8: 12-15, illus.
(Spot die-out results from a combination of unfavorable edaphic factors that contribute to excessive root mortality, loss of vigor, and subsequent mortality on less favorable sites.)

COTRUFO, COSIMO
1962. Pretreatment of eastern white pine seed. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 176, 2 pp.
(Response of eastern white pine seed to pretreatment with citric and tartaric acids.)

_____ 1963. Stimulation by citric acid on germination of eastern red cedar (Juniperis virginiana L.). Nature 199: 92-94.
(Pretreatment with citric acid increases both speed and total germination of eastern red cedar seed.)

CROSBY, J. S., JOHANSEN, R. W., and COOPER, R. W.
1963. A new machine for forest fire control: the Model II Michigan Sand Caster. Cent. States Forest Expt. Sta., U. S. Forest Serv. Res. Paper CS-2, 30 pp.
(Operation and capabilities of the experimental model.)

CUSHWA, C. T.
1962. Forest recreation--how much? Va. Wildlife 23(1): 12, illus.
(Partial results of a sampling study for estimating how much and what kind of recreation is occurring on a 100-square-mile unit of forest land.)

_____ 1963. Development of a method for measuring dispersed recreation use of forest land. Master of Science Thesis in Forestry and Wildlife, Va. Polytech. Inst.
(A 1-year, case-history sampling study of recreation use on a 100-square-mile unit of the George Washington National Forest gave acceptable estimates of total and component recreation use. Methods can be adapted for use elsewhere.)

_____ and JAMES, G. A.
1962. Measurement of forest recreation use. South. Lumberman 205(2561): 150-151, illus.
(Two sampling methods for estimating recreation use on developed recreation sites and undeveloped forest areas.)

DARGAN, E. E., and SMITH, W. R.
1959. Progress in charcoal production... continuous residue carbonization. Forest Prod. Jour. 9(11): 395-397.
(Describes machinery and process for continuous carbonization of fine wood residue without supplemental heating requirements.)

DAVIDSON, R. W., LOMBARD, F. F., and CAMPBELL, W. A.
1959. A white heart rot of Fraxinus caused by Fomes johnsonianus (Murr.) Lowe. U. S. Dept. Agr. Plant Dis. Rptr. 43(11): 1148-1149.
(Fomes johnsonianus causes a white laminated heart rot in living trees of Fraxinus.)

_____ TOOLE, E. R., and CAMPBELL, W. A.
1959. A preliminary note on the cause of "pecky" cypress. U. S. Dept. Agr. Plant Dis. Rptr. 43(7): 806-808.
(A Stereum sp. probably causes the rot in baldcypress that is known commercially as "pecky" cypress.)

DAVIS, L. S., and COOPER, R. W.
1963. How prescribed burning affects wildfire occurrence. Jour. Forestry 61: 915-917.
(Effect exerted by age-of-rough on forest fire occurrence and forest acreage burned in Florida and Georgia.)

_____ and MARTIN, R. E.
1960. Time-temperature relationships of test head fires and backfires. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 148, 2 pp.
(In gallberry-palmetto roughs, head fire and backfire temperatures reached a maximum of 1600° F., and 600° F., respectively. Temperatures at the 1-foot level were higher than those at the 4-foot level.)

DAVIS, ROBERT
1960. Parasites of the elm spanworm, Ennomos subsignarius (Hbn.) in Georgia. Ent. Soc. Wash. Proc. 62(4): 247-248.
(Results of parasite recovery from elm spanworm pupae and larvae.)

DAY, M. W., and BENNETT, F. A.
1962. Percent of height as a measure of density in slash pine plantations. Quart. Bul. Mich. Agr. Expt. Sta., Mich. State Univ. 45(2): 325-333.
(Percent of height was found to be a valid measure of density but does not give results that are comparable with basal area or any other measure of stand density.)

DELLA-BIANCA, LINO
1962. Some hydrologic properties of the Cecil and Lloyd soil series in Piedmont forests. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 179, 2 pp.
(Lists soil separates, moisture equivalents, wilting points, bulk densities, percolation rates, detention storage, retention storage, and saturated pore space by horizons.)

_____ and OLSON, D. F., Jr.
1961. Soil-site studies in Piedmont hardwood and pine-hardwood upland forests. Forest Sci. 7: 320-329, illus.
(Procedures used for soil-site investigations in subclimax softwood types did not produce useful guides for climax forests in the Piedmont although a number of the measured soil factors were correlated with tree growth.)

DIXON, J. C.
1961. Pine chafer beetle causes damage in the Southeast. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 156, 2 pp.
(Since 1956 this beetle has been reported attacking planted pine in the southeastern United States.)

_____ and BENJAMIN, D. M.
1962. An evaluation of susceptibility of jack pine forests to defoliation by the jack-pine budworm. Univ. Wis. Forestry Res. Notes 78, 4 pp.
(Susceptibility of jack pine stands is related to density of stocking.)

_____ and BENJAMIN, D. M.
1963. Natural control factors associated with the jack-pine budworm, Choristoneura pinus. Jour. Econ. Ent. 56: 266-270.
(Forty-six parasites were recovered in Wisconsin during 1954-1957 from jack-pine budworm, 20 of which were new records. Contains an evaluation of parasitism on jack-pine budworm populations.)

_____ and OSGOOD, E. A.
1961. Southern pine beetle – a review of present knowledge. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 128, 34 pp., illus.
(Literature on the southern pine beetle is reviewed and research findings are summarized.)

DOOLITTLE, W. T., and VIMMERSTEDT, J. P.
1960. Site index curves for natural stands of white pine in the southern Appalachians. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 141, 2 pp.
(Curves based upon 105 plots of white pine ranging from 22 to 78 years of age and tree heights from 36 to 114 feet.)

DORMAN, K. W.
1959. Forest genetics and tree improvement research at the Southeastern Forest Experiment Station. Sixth Meeting of the Committee on Forest Tree Breeding in Canada, Part II, Reports and Papers Proc. Section: Programme Reviews by Visitors, Q-1 and Q-2. Montreal.
(The program in applied tree breeding through racial selection, single tree selection, and intraspecific hybridization is outlined.)

_____
1959. The status of work on wood quality in southern forest tree improvement research. Sixth Meeting of the Committee on Forest Tree Breeding in Canada, Part II, Reports and Papers Proc. Section 4, Seminar: Timber Quality and Genetics, S-1 to S-15. Montreal.
(Reviews results of recent work in wood specific gravity, tracheid length, and cellulose content on the basis of correlation of mature with juvenile traits, correlation of branchwood with stemwood, and variation and inheritance.)

_____
1961. Selection as a method of tree breeding. Sixth South. Conf. on Forest Tree Improvement Proc. 1961: 65-72.
(The large amount of inherent variation that apparently occurs in southern tree species should be fully utilized in tree breeding before much work is done with other methods.)

DORMAN, K. W.

1962. Forest tree improvement for Georgia: a problem analysis of research needs in forest tree breeding and forest genetics. Ga. Forest Res. Council Rpt. 9, 79 pp., illus.
(Comprehensive, long-range program of forest tree breeding and genetics research including racial selection, single tree selection, and several types of hybridization.)

1963. How scientists are attacking fusiform rust. Forest Farmer 22(11): 6-8, 16-18.
(Work of many different investigators on inheritance of resistance to fusiform rust in trees within species, in races, and in hybrids with slash and loblolly pine is summarized.)

1963. Planned parenthood for pine trees. Paper Mill News 66(39): 16, 21.
(A popularized account of the contributions of genetics studies to applied silviculture and applied tree breeding.)

DOUGLASS, J. E.

1960. Soil moisture distribution between trees in a thinned loblolly pine plantation. Jour. Forestry 58: 221-222, illus.
(Shows that variation in soil moisture is related to tree location, and discusses associated sampling problems in plantations.)

1962. A method for determining the slope of neutron moisture meter calibration curves. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 154, 6 pp., illus.
(A new volumetric procedure for calibrating neutron moisture probes.)

1962. Variance of nuclear moisture measurements. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 143, 11 pp., illus.
(Sources of variation in moisture measurement, precision of estimates of total moisture content vs. moisture change, and experimental design for the neutron moisture meter.)

DROOZ, A. T.

1960. The elm spanworm outbreak in the southern Appalachians. South. Lumberman 201(2513): 111, illus.
(Unusual aspects of the 6-year-old outbreak in Georgia, North Carolina, and Tennessee.)

1961. Mesoleius tenthredinis Morl. in Pennsylvania and Michigan. Canad. Ent. 93: 804-807.
(Parasite egg encapsulation was found in host Pristiphora erichsonii from lower Michigan. Percent parasitism increased in Pennsylvania until 1960 when a serious decline began.)

1963. Aggregation affects color of elm spanworm larvae. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-13, 4 pp.
(Larvae reared singly were of light colors, whereas larvae reared in colonies were dark. This explains the occurrence of different-colored larvae in the field.)

DROOZ, A. T.
1963. Elm spanworm head-capsule measurements. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-12, 1 p.
(Five distinct instars were found in a preliminary rearing. Additional work indicated that six instars may occur on certain hosts. This would present a problem in interpretation of the late instars.)

_____ and SOLOMON, J. D.
1961. Elm spanworm egg mass studies. Jour. Econ. Ent. 54: 1060-1061, illus.
(The elm spanworm oviposits significantly more egg masses on red or white oaks than on hickories. The third- and fourth-foot sections of 5-foot branch samples contained three-fifths of the masses.)

_____ and SOLOMON, J. D.
1961. Southeast. In Forest insect conditions in the United States 1960. Forest Serv., U. S. Dept. Agr., pp. 30-32, illus.
(Reports important insect outbreaks in forests in the Southeast during 1960.)

_____ and SOLOMON, J. D.
1962. A comparison of elm spanworm oviposition habits in 1960 and 1961. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 173, 2 pp.
(When egg mass samples of elm spanworm were compared for position on a host branch and host preference, the distribution patterns for 2 years were nearly identical.)

EBEL, B. H.
1959. Laboratory rearing of a pine cone insect, Dioryctria abietella (D. & S.). Jour. Econ. Ent. 52(4): 561-564, illus.
(A satisfactory method has been developed for the continuous rearing of larvae in petri dishes using paraffin-waxed, first-year pine cones as food.)

_____
1961. Thrips injure slash pine female flowers. Jour. Forestry 59: 374-375, illus.
(Damage to cones and seed of slash and longleaf pine, formerly ascribed to various causes, caused by thrips.)

_____
1963. Insects affecting seed production of slash and longleaf pines--their identification and biological annotation. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Paper SE-6, 24 pp.
(Insects were collected and reared in northern Florida from 1956 to 1960. Paper contains habitat list of insects found in collected host material; annotated list of the insects in host material; key to common insect damage to flowers and cones of slash and longleaf pines.)

_____ MERKEL, E. P., and KOWAL, R. J.
1959. Know your forest insects. Forest Farmer 19(3): 6-7, illus.
(A key to common forest insects of the South based on damage characteristics, and meant to supplement the descriptive tables in the Forest Farmer Manual.)

_____ MERKEL, E. P., and KOWAL, R. J.
1960. Key to southern forest insects--based on damage symptoms. Forest Farmer Manual 19(7): 106-107, illus.
(Identification of destructive forest insects by their damage symptoms.)

EVANS, T. C.
1959. Field technique for evaluating the success of establishment. Direct Seeding in the South Symposium. Duke Univ. School Forestry, 1959: 161-167.
(Discussion of survey objectives, population characteristics, sampling units, and design with respect to direct seeding.)

_____ 1959. General appraisal of statistical problems and need. Techniques and Methods of Measuring Understory Vegetation Symposium Proc. 1958: 146-151. Published jointly by U. S. Forest Serv. South. Forest Expt. Sta. and Southeast. Forest Expt. Sta.
(Discussion of sampling methods, sampling units, and field plot experiments as related to understory vegetation.)

_____ BARBER, J. C., and SQUILLACE, A. E.
1961. Some statistical aspects of progeny testing. Sixth South. Conf. on Forest Tree Improvement Proc. 1961: 73-79.
(In 10-year-old slash pine, coefficients of variation tend to become stable at about 20 trees per plot for height, diameter, bark thickness, and clear length.)

FAHNESTOCK, G. R., and JOHANSEN, R. W.
1960. Will borate kill southern timber? U. S. Forest Serv. Fire Control Notes 21(3): 87-93.
(Effects of sodium calcium borate slurries on southern species.)

FEDDE, G. F.
1963. Elm spanworm. U. S. Dept. Agr. Forest Pest Leaflet 81, 7 pp.
(Distribution, description of stages, life history and habits, hosts, damage, and control.)

FONS, W. L.
1961. Rate of combustion from free surfaces of liquid hydrocarbons. Combustion and Flame 5(3): 283-287, illus.
(Burning velocity of n-hexane and cyclohexane as related to the area of the burning fuel surface was studied.)

_____ BRUCE, H. D., and PONG, W. Y.
1961. A steady-state technique for studying the properties of free-burning wood fires. Natl. Acad. Sci. Natl. Res. Council Pub. 786: 219-234, illus.
(Describes and illustrates a steady-state model for studying effect of fuel and fuel bed variables on fire behavior of wood fires burning in an unconfined atmosphere.)

_____ CLEMENTS, H. B., ELLIOTT, E. R., and GEORGE, P. M.
1962. Project fire model--summary progress report--II.
(Distributed to restricted list by National Bureau of Standards.)

_____ CLEMENTS, H. B., and GEORGE, P. M.
1963. Scale effects on propagation rates of laboratory crib fires. In Ninth Symposium (Internatl.) on Combustion, pp. 860-866. New York: Academic Press.
(Effect of the properties of fuel and fuel bed on the behavior of crib fires.)

FOSTER, A. A.
1959. Nursery diseases of southern pines. U. S. Dept. Agr. Forest Pest Leaflet 32, 7 pp., illus.
(Cause, symptoms, and control for damping-off, black root rot, nematode injury, fusiform rust, brown spot, and chlorosis.)

_____
1961. Control of black root rot of pine seedlings by soil fumigation in the nursery. Ga. Forest Res. Council Rpt. 8, 5 pp., illus.
(Fumigation of pine nursery soils with methyl bromide controlled black root rot and increased nursery production.)

_____ and KRUEGER, D. W.
1961. Protection of pine seed orchards and nurseries from fusiform rust by timing ferbam sprays to coincide with infection periods. Ga. Forest Res. Paper 1, 4 pp., illus.
(Instructions for timing sprays to reduce costs while maintaining effective protection.)

FROELICH, R. C.
1959. Defect in merchantable sawtimber is largely visible. South. Lumberman 198(2466): 34-35, illus.
(The importance of different types of cull in sawtimber as determined by studies in Virginia, North Carolina, and South Carolina.)

GABY, L. I.
1959. Operation predry ... variables in drying southern pine. Forest Prod. Jour. 9(5): 23A-26A.
(Reports on drying southern yellow pine lumber with forced-air and on the influence of several introduced drying variables.)

_____
1961. Forced air-drying of southern pine lumber. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 121, 20 pp., illus.
(4/4 pine can be dried to 19 percent moisture content in 4 to 6 days with very little degrade if minimum temperatures, EMC conditions, air velocities, and length of air travel are controlled.)

_____
1963. Surface checking of white oak as related to mechanical processing. Forest Prod. Jour. 13(12): 529-532.
(Green-surfaced white oak lumber surface checked less than either unsurfaced circular or band sawn lumber.)

GOEBEL, N. B., TARAS, M. A., and SMITH, W. R.
1960. Tension wood and its relation to splitting in hickory. S. C. Agr. Expt. Sta. Bul. 480, 21 pp., illus.
(A study of internal stresses that cause end splitting in hickory logs.)

GRUSCHOW, G. F.
1959. Incidence of rot in hardwood sawtimber in coastal North Carolina. Jour. Forestry 57: 370-371.
(Data on the incidence and amount of decay, by species, of the hardwood component of 100-year-old loblolly pine stands in coastal North Carolina.)

GRUSCHOW, G. F.
1959. Observations on root systems of planted loblolly pine. Jour. Forestry 57: 894-896, illus.
(Survey of root systems of bar-planted seedlings in southeastern Virginia.)

_____ and EVANS, T. C.
1959. The relation of cubic-foot volume growth to stand density in young slash pine stands. Forest Sci. 5: 49-55, illus.
(Relationships between growth per acre, stand density, and site quality in flatwoods of northeastern Florida and southeastern Georgia.)

GUILKEY, P. C.
1959. The influence of vegetational layers on cover measurements. Techniques and Methods of Measuring Understory Vegetation Symposium Proc. 1958: 101-104. Published jointly by U. S. Forest Serv. South. Forest Expt. Sta. and Southeast. Forest Expt. Sta.
(Most methods and instruments now available can be adapted for use if the various layers can be defined satisfactorily.)

_____ and NELSON, T. C.
1963. Silvicultural factors affecting saw log quality of loblolly pine. Jour. Forestry 61: 190-192.
(The equation:
Log "K"-count/MBF = 3.313940
– .013522(Age) – .000185(Age x Site)
accounted for about 89 percent of the variation about the mean.)

HAASIS, F. A., and HODGES, C. S.
1960. An angular leaf spot of Magnolia grandiflora caused by Isariopsis sp. (Abs.) Phytopathology 50(9): 637.
(Controlled inoculations confirmed that Isariopsis sp. caused a previously undescribed leaf spot of 1- and 2-year-old seedlings in North Carolina.)

HALE, O. M., HUGHES, R. H., and KNOX, F. E.
1962. Forage intake by cattle grazing wiregrass range. Jour. Range Mangt. 15: 6-9, illus.
(Daily intake of native forage and total digestible nutrients declined during summer and fall from spring maximums, then dropped abruptly in winter.)

HALLS, L. K., HUGHES, R. H., and PEEVY, F. A.
1960. Grazed firebreaks in southern forests. U. S. Dept. Agr. Inform. Bul. 226, 8 pp., illus.
(Location and selection, clearing and land preparation, what to plant, fertilization and liming, seeding and grazing.)

_____ and RIPLEY, T. H.
1961. Deer browse plants of southern forests. U. S. Forest Serv. South. and Southeast. Forest Expt. Stas., 78 pp., illus.
(The more important browse plants, occurrence, growth habits, and tolerance.)

HAMILTON, J. R., and BETHEL, J. S.
1961. A photo-optical method for determining gross characteristics of wood. Jour. Forestry 59: 373-374, illus.
(Describes a method of quantitatively comparing superficial visual characteristics of wood, such as annual increment width, width of latewood, or relative proportions of tissues in latewood of hardwoods.)

HANEY, G. P.

1960. Forest research in Virginia by the U. S. Forest Service. Va. Tech. Forester 12: 29-32.
(Reports Southeastern Forest Experiment Station research program in Virginia.)

_____ 1961. The back-pack mist blower. Forest Farmer 20(13): 8, 14, 16, illus.
(Based on tests in Piedmont Virginia, portable back-pack mist blowers offer new possibilities for low-cost hardwood control on small holdings.)

_____ 1962. Growth of thinned white oak sprouts. Jour. Forestry 60: 644-645.
(The increased diameter growth after thinning white oak sprout clumps on sites 50 to 60 is not great enough to offset the loss of cubic-foot growth.)

_____ 1962. A revised shortleaf pine bibliography. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 155, 74 pp.
(Brings Station Paper 48, "Shortleaf Pine Bibliography," up to date.)

_____ 1962. Seedbed scarification aids regeneration of shortleaf pine. Jour. Forestry 60: 400-402, illus.
(Scarification quadrupled milacre stocking of shortleaf pine in the North Carolina Piedmont.)

_____ and KORMANIK, P. P.
1962. Cubic-foot volume tables for shortleaf pine in the Virginia-Carolina Piedmont. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 170, 2 pp.
(Cubic-foot volumes of wood plus bark to a 3-inch and 4-inch top d.i.b. for natural shortleaf pine by diameter and total height.)

_____ and METZ, L. J.
1959. Silvical characteristics of southern red oak. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 106, 9 pp., illus.
(Extent and climate of botanical range, edaphic and physiographic site conditions, reproductive and growth habits, ecology, plant and animal pests, and response to management.)

HARMS, W. R.

1961. Growth of fusiform cankers on young slash pine. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 159, 2 pp.
(If a slash pine is to be kept in the stand for any length of time, it should be pruned of rust cankers closer than 14 inches to the stem.)

_____ 1962. Spacing-environmental relationships in a slash pine plantation. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 150, 16 pp., illus.
(Diameter growth among three spacings and relationships to soil moisture, rainfall, evaporation, wind, and soil and air temperature.)

HARMS, W. R., and McGREGOR, W. H. D.
1962. A method for measuring the water balance of pine needles. Ecology 43(3): 513-532.
(Describes adaptation of Weatherly's relative turgidity procedure to pine.)

HEFNER, J. E., and STOREY, T. G.
1961. An analysis of 1959 forest fires and fire danger in Georgia. Ga. Forest Res. Paper 2, 38 pp., illus.
(Statistics of actual fires and burning conditions in the State.)

_____ and STOREY, T. G.
1961. An analysis of 1960 forest fires and fire danger in Georgia. Ga. Forest Res. Paper 7, 40 pp., illus.
(Substantiates first-year study results and demonstrates uses of danger rating trends for evaluating accomplishments in prevention and fire control.)

HELVEY, J. D., and HEWLETT, J. D.
1962. The annual range of soil moisture under high rainfall in the Southern Appalachians. Jour. Forestry 60: 485-486, illus.
(Interpretation of soil moisture observations suggests that forest vegetation at Coweeta Hydrologic Laboratory rarely if ever suffers true drought. Seasonal soil moisture changes were strongly correlated with changes in streamflow.)

HENDRIX, F. F., Jr., and KUHLMAN, E. G.
1962. A comparison of isolation methods for Fomes annosus. U. S. Dept. Agr. Plant Dis. Rptr. 46(9): 674-676.
(The number of wood samples infected by Fomes annosus, as well as the depth of penetration into wood, can be determined more accurately by plating than by incubating in moist paper and examining the wood surface for the presence of conidia.)

_____ and KUHLMAN, E. G.
1963. Effect of inoculum potential on colonization of Pinus echinata stumps by Fomes annosus. (Abs.) Phytopathology 53(8): 877.
(Compares colonization of Pinus echinata stumps by Fomes annosus where various numbers of conidia and basidiospores are used as inoculum.)

HENRY, B. W., DORMAN, K. W., and WAKELEY, P. C.
1962. Forest genetics publications by the Southeastern and Southern Forest Experiment Stations. U. S. Forest Serv. South. Forest Expt. Sta. Occas. Paper 192, 27 pp.
(Annotated bibliography of papers on forest genetics, forest tree breeding, and several closely related fields.)

HEPTING, G. H.
1959. Disease losses in southern pine seed during cone production. Direct Seeding in the South Symposium. Duke Univ. School Forestry, 1959: 36-39.
(The most important disease interfering with seed production in a southern pine is the cone rust caused by Cronartium strobilinum. Oaks are alternate hosts.)

_____
1959. Forest pathology in forest management in the United States. (Abs.) IX Internatl. Bot. Cong. Proc. 2: 161-162.
(Most research is aimed at practical aspects of causes and control. The fundamentals of behavior of trees and pathogens will be given greater emphasis in future research.)

HEPTING, G. H.

1959. Meeting the problem of forest diseases. Forest Farmer 18(8): 46-48.
(Describes major forest diseases in the Southeast and progress in combating them.)

1960. Differentiating needle blights of white pine in the interpretation of fume damage. (Abs.) Third Air Pollut. Res. Seminar Syllabus 1960: 31.
(Symptoms for several disease entities that produce needle blights of white pine.)

1960. The problem of forest diseases--and how to meet it. Forest Farmer Manual 19(7): 108-110.
(Economically important tree diseases in the South and measures for combating them.)

1960. Spot anthracnose and other diseases of dogwood. Arborist's News 25(4): 25-28, illus. Also, with title Spray program for dogwood diseases, Amer. Nurseryman 112(9): 112-114.
(A suggested spray program for controlling spot anthracnose, Ascochyta blight, Septoria leafspot, and Botrytis blight, each of which is briefly described.)

1960. The threat of pathogens. Fourth Conf. on South. Indus. Forest Mangt. Proc., Duke Univ. School Forestry, pp. 22-27.
(Pure stands of trees are particularly vulnerable to disease. Describes six serious threats to monocultures.)

1961. Pinus radiata susceptible to pitch canker. U. S. Dept. Agr. Plant Dis. Rptr. 45(11): 889-890.
(Pinus radiata was demonstrated to be highly susceptible to the pitch canker fungus. Fruiting of the fungus was also noted on this host.)

1961. The 10 most important forest pests in the South--insects and diseases. Forest Farmer 21(1): 11, 30-31.
(Major forest tree diseases in the South are discussed.)

1962. Climate change and forest diseases. Fifth World Forestry Cong. Proc. 2: 842-847.
(A consideration of long-range changes in our climate, and how these factors may influence the development and severity of forest tree diseases.)

1962. Forestry gains from basic research. Va. Jour. Sci. 13(3): 123-134.
(A review of several types of basic research in forestry.)

1962. The top five among forest diseases of the South. Forest World 1(3): 35-38.
(The five most serious forest tree diseases in the South, and measures for their control.)

HEPTING, G. H.
1963. Climate and forest diseases. Ann. Rev. Phytopath. 1: 31-50.
(The relationship between climatic change and tree diseases.)

_____ 1963. Forest pathology. In A Special Field Institute in Forest Biology Proc. 1960. School Forestry, N. C. State Col., Raleigh, pp. 217-247.
(A comprehensive review of concepts, problems, and research objectives in forest pathology.)

_____ 1963. Persimmon wilt. In Internationally dangerous forest tree diseases. U. S. Dept. Agr. Misc. Pub. 939, pp. 85-86.
(Symptoms, diagnostic features, and range of persimmon wilt.)

_____ and BERRY, C. R.
1961. Differentiating needle blights of white pine in the interpretation of fume damage. Internatl. Jour. Air and Water Pollut. 4(1/2): 101-105.
(Five needle blights of white pine are distinguished on the basis of symptomatology.)

_____ and FOWLER, M. E.
1962. Tree diseases of eastern forests and farm woodlands. U. S. Dept. Agr. Inform. Bul. 254, 48 pp., illus.
(A comprehensive review of the various diseases occurring on eastern tree species.)

_____ and NEWHOOK, F. J.
1962. A pine disease in New Zealand resembling littleleaf. U. S. Dept. Agr. Plant Dis. Rptr. 46(8): 570-571, illus.
(Description of a disease condition of Monterey pine in New Zealand closely resembling littleleaf disease of shortleaf pine in the United States.)

HEWLETT, J. D.
1961. Response of fescue to natural moisture gradient on an artificial slope. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 152, 2 pp.
(Minor changes in soil moisture stress may in part account for observed reductions in form and vigor of plants with increasing elevation on well-watered natural slopes.)

_____ 1961. Soil moisture as a source of base flow from steep mountain watersheds. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 132, 11 pp., illus.
(Model studies of unsaturated flow in sloping soil columns show that ground water is not the only source of base flow in mountain streams.)

_____ and DOUGLASS, J. E.
1961. A method for calculating error of soil moisture volumes in gravimetric sampling. Forest Sci. 7: 265-272, illus.
(Limitations in sampling soil density and moisture percent to determine inches of water renders the gravimetric method a poor tool for hydrologic research.)

HEWLETT, J. D., and HIBBERT, A. R.
1961. Increases in water yield after several types of forest cutting. Bul. Internatl. Assoc. Sci. Hydrol. 6(3): 5-17, illus.
(Effects of timber and brush removal on water yields from small watersheds are examined in the light of 25 years of hydrologic research at Coweeta.)

_____ and HIBBERT, A. R.
1963. Moisture and energy conditions within a sloping soil mass during drainage. Jour. Geophys. Res. 68: 1081-1087.
(A model of a sloping soil profile is used to show that slow, unsaturated flow of soil moisture above the water table furnishes much of the sustained flow between storms in mountain land.)

_____ and KRAMER, P. J.
1963. The measurement of water deficits in broadleaf plants. Protoplasma 57(1/4): 381-391.
(Reviews past work and the confusion of terminology in plant water deficits, and compares water deficits measured on leaf disks and whole leaves of many forest trees.)

_____ and METZ, L. J.
1960. Watershed management research in the Southeast. Jour. Forestry 58: 269-271, illus.
(Reviews watershed management research of the Southeastern Forest Experiment Station at the Coweeta Hydrologic Laboratory and Union Research Center.)

HILMON, J. B.
1959. Determination of herbage weight by double-sampling: weight estimate and actual weight. Techniques and Methods of Measuring Understory Vegetation Symposium Proc. 1958: 20-25, illus. Published jointly by U. S. Forest Serv. South. Forest Expt. Sta. and Southeast. Forest Expt. Sta.
(Double-sampling provides faster and more efficient estimates of forage production and utilization on native forage in a rates of cattle stocking study in south Florida.)

_____ CLUTTER, J. L., and CABLE, D. R.
1963. Layout of experimental units. In Range research methods. U. S. Dept. Agr. Misc. Pub. 940, pp. 124-131.
(Basic statistical requirements for proper layout are defined; biological and physical pitfalls are discussed through examples of grazing experiments from the south and central great plains.)

_____ and LEWIS, C. E.
1962. Effect of burning on south Florida range. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 146, 12 pp., illus.
(Trends in yield, chemical content, and species composition of native herbage were followed over a 2-year period after a February fire.)

_____ LEWIS, C. E., and BETHUNE, J. E.
1963. Highlights of recent results of range research in southern Florida. Soc. Amer. Foresters Proc. 1962: 73-76.
(Effects of cattle damage and fertilization on the integrated timber-livestock management of south Florida slash pine ranges.)

HODGES, C. S.

1959. Histological studies of roots of pine seedlings infected with black root rot. (Abs.) Phytopathology 49(5): 318.
(Sclerotium bataticola and Fusarium spp. are associated with the disease and pathogenic in inoculation tests; former produces indoleacetic acid, which can cause marked proliferation of root cortex.)

1960. Effect of soil fumigation in the nursery on growth of loblolly pine seedlings and control of weeds. U. S. Forest Serv. Tree Planters' Notes 42: 23-27.
(Describes tests using different formulations and applications of methyl bromide, Vapam, Brozone, Eptam, and Nemagon.)

1961. Freezing lowers survival of three species of southern pines. U. S. Forest Serv. Tree Planters' Notes 47: 23-24.
(Prolonged periods of freezing seriously lowered survival of three southern pine species, with longleaf pine most sensitive to this type of injury.)

1961. New hosts for Cercospora thujina Plakidas. U. S. Dept. Agr. Plant Dis. Rptr. 45(9): 745.
(Four new host species are reported as being attacked by Cercospora thujina.)

1962. Black root rot of pine seedlings. Phytopathology 52(3): 210-219, illus.
(Field isolations and greenhouse inoculations indicate Sclerotium bataticola, alone or in combination with Fusarium spp., causes black root rot.)

1962. Comparison of four similar fungi from Juniperus and related conifers. Mycologia 54(1): 62-69, illus.
(The taxonomy, host range, and distribution of Cercospora sequoiae var. juniperi, C. sequoiae, Stigmina juniperina, and S. glomerulosa.)

1962. Diseases in southeastern forest nurseries and their control. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 142, 16 pp., illus.
(Descriptions and control of the more common diseases of seedlings of forest trees in southern nurseries.)

1962. Fungi isolated from southern forest tree nursery soils. Mycologia 54(3): 221-229.
(A listing of various fungi isolated from soil samples collected in 30 forest nurseries in 10 southern states.)

and GREEN, H. J.

1960. Survival in the plantation of eastern redcedar seedlings infected with Phomopsis juniperovora in the nursery. (Abs.) Phytopathology 50(9): 639.
(Results show that infected seedlings should be culled from planting stock.)

HODGES, C. S., and GREEN, H. J.
1961. Survival in the plantation of eastern redcedar seedlings infected with Phomopsis blight in the nursery. U. S. Dept. Agr. Plant Dis. Rptr. 45(2): 134-136.
(Relatively little Phomopsis blight infection at the time of planting resulted in high mortality of the seedlings after two growing seasons.)

_____ and HAASIS, F. A.
1962. Etiology of Cercospora leaf spot of magnolia. Mycologia 54(4): 453-454.
(Cross inoculation studies with isolates of Cercospora magnoliae from Magnolia grandiflora and M. virginiana produced leaf spot symptoms typical for the respective host regardless of source of inoculum. The taxonomy of the causal organism is discussed and an emended description of the species is given.)

_____ and JORGENSEN, E.
1963. Fomes annosus root rot. In Important forest diseases of mutual concern to member countries of the North American Forestry Commission. NAFC, FAO, pp. 36-37.
(Hosts, life history, range, and economic impact of annosus root rot, with discussion of control measures and research problems.)

HOEKSTRA, P. E.
1960. Counting cones on standing slash pine. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 151, 2 pp.
(Method for estimating number of cones on standing trees.)

_____
1960. Problems of slash pine seed supply. Soc. Amer. Foresters Proc. 1959: 24-25.
(Methods of increasing slash pine cone crops through cultural means and cone protection.)

_____
1961. Research helps build better forestry in Virginia. Forest Farmer 20(8): 12-13, 22, illus.
(Current research programs of federal, state, and private agencies in Virginia.)

_____
1961. Tree-raising succeeds on barren sand tracts. U. S. Forest Serv. Tree Planters' Notes 48: 11-12, illus.
(Describes successful planting methods on dune-like sands near Jacksonville, Florida.)

_____ and ASHER, W. C.
1962. Diameter growth of pole-size slash pine after fertilization. Jour. Forestry 60: 341-342, illus.
(Radial growth response to a 7-7-7 fertilizer on a Plummer soil was greater than response to 3-18-6 fertilizer. Radial growth with 7-7-7 applied at 20 pounds per tree was 126 percent of the control.)

_____ and HUTCHINSON, J. G.
1963. First-year results indicate Virginia pine response to release. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-14, 2 pp.
(All crown classes of 10- to 30-year-old Virginia pine grew more rapidly in diameter during the first growing season after release.)

HOEKSTRA, P. E., MERKEL, E. P., and POWERS, H. R., Jr.
1961. Production of seeds of forest trees. U. S. Dept. Agr. Yearbook 1961: 227-232.
(Current status of research and action programs and problems concerned with forest tree seed production.)

HOPPER, B. E., and PADGETT, W. H.
1960. Relationship of nemas (nematodes) with the root rot of pine seedlings at the E. A. Hauss State Forest Nursery, Atmore, Alabama. U. S. Dept. Agr. Plant Dis. Rptr. 44(4): 258-259.
(Soil samplings showed that nematodes probably did not cause the root rot.)

HUGHES, R. H.
1959. The weight-estimate method in herbage production determinations. Techniques and Methods of Measuring Understory Vegetation Symposium Proc. 1958: 17-19. Published jointly by U. S. Forest Serv. South. Forest Expt. Sta. and Southeast. Forest Expt. Sta.
(Describes procedures and uses of weight-estimate method on range lands of the South and East.)

_____ DILLARD, E. U., and HILMON, J. B.
1960. Vegetation and cattle response under two systems of grazing cane range in North Carolina. N. C. Agr. Expt. Sta. Bul. 412, 27 pp., illus.
(Alternate yearlong and summer-winter systems of grazing cane range gave about equal cattle performance, but continuous summer grazing hastened decadence of cane stands.)

_____ and JACKSON, J. E.
1962. Fertilization of young slash pine in a cultivated plantation. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 148, 14 pp., illus.
(Phosphate at 50-pound rate was the most efficient fertilizer tested. Rapid growth stimulated by cultivation and fertilization apparently increased the susceptibility of plantation trees to insects and diseases.)

_____ and SOUTHWELL, B. L.
1963. Mineral consumption related to improved cattle management systems in Georgia. Jour. Range Mangt. 16: 109-112.
(Mineral consumption by several herds of cattle assigned various rations of native range, improved pasture, and protein supplements over a 6-year period.)

HUPPUCH, C. D.
1960. The effect of site preparation on survival and growth of sycamore cuttings. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 140, 2 pp.
(Discing plus cultivation was best for maximum height growth but the less expensive double furrowing gave better survival and satisfactory height growth.)

_____
1960. Observations on white oak stem swellings. U. S. Dept. Agr. Plant Dis. Rptr. 44(4): 238-239, illus.
(Unusual swellings have been noted on white oaks in the mountains of north Georgia and western North Carolina; no causal agent has been found.)

HUPPUCH, C. D.
1961. Epicormic branching on sycamore. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 166, 1 p.
(Dense stands of sycamore can be thinned to residual densities as low as 80 square feet of basal area per acre without appreciable epicormic branching.)

IKE, A. F., Jr.
1962. Fertilized yellow-poplar seedlings maintain growth advantage after four years. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 175, 2 pp.
(Fertilized seedlings showed increase in height growth each year over unfertilized seedlings.)

_____ 1962. Fertilizer nearly doubles Georgia sycamore growth. Crops and Soils 15(3): 16.
(Properly prepared and fertilized, sycamore seedlings will survive and outgrow weeds that often defeat old-field plantations.)

_____ 1962. Root collar diameter is a good measure of height growth potential of sycamore seedlings. U. S. Forest Serv. Tree Planters' Notes 54: 9-11, illus.
(Mean first-year height growth of seedlings with root collars of various diameters.)

JAMES, G. A., and RIPLEY, T. H.
1963. Instructions for using traffic counters to estimate recreation visits and use. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Paper SE-3, 12 pp.
(A simple, inexpensive, and reliable technique is described for obtaining estimates of recreation visits at unattended sites.)

_____ and RIPLEY, T. H.
1963. Overuse--a threat to our developed recreation areas. Amer. Rec. Jour. 4(3): 5-6.
(Sampling of developed camping and picnic sites in the southern Appalachians suggests guides for minimizing site deterioration.)

JANSSEN, P. L., and WEILAND, M. R.
1960. Softwood distribution maps for the South. U. S. Forest Serv. South. Forest Expt. Sta. Forest Survey Release 83, 12 pp., illus.
(Range and growing stock volume of 11 principal softwood species.)

JOHANSEN, R. W.
1959. Monoammonium phosphate shows promise in fire retardant trials. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 137, 2 pp.
(Aerially-dropped loads of monoammonium phosphate stopped surface head fires in highly combustible fuels in south Georgia.)

_____ 1962. Establishing seedlings on borate-treated areas. Forest Farmer 21(12): 17, illus.
(Slash pine seedlings can be planted successfully on borate-treated areas after double-disking.)

JOHANSEN, R. W.
1963. Protecting the tractor-fireplow operator from radiant heat. U. S. Forest Serv. Fire Control Notes 24: 73-75.
(Discusses use of screen wire for protection.)

_____ and KRAUS, J. F.
1959. Fertilizing cleft and bottle graft scions in an attempt to increase graft unions. Jour. Forestry 57: 511, 514.
(Scion-fertilization treatments in the concentrations used did not have a beneficial effect on the success of either cleft or bottle grafts.)

_____ and SHIMMEL, J. W.
1963. Increasing the viscosity of water and chemical fire retardants with clays and gums. Ga. Forest Res. Paper 19, 7 pp.
(The effectiveness of two clays and five industrial gums in thickening water and diammonium phosphate solutions.)

_____ and TURNER, J. C.
1959. Efficient use of aerial tankers in the southeast. South. Lumberman 199(2489): 99-100, illus.
(In open areas, 220-gallon drops of fire retardant material are adequate; in well-stocked stands, 440-gallon drops are required.)

JOHNSON, E. A., and MEGINNIS, H. G.
1960. Effect of altering forest vegetation on low flow of streams. Comm. Surface Waters, Gen. Assembly of Helsinki, Inter. Assoc. Sci. Hydrol. Pub. 51: 257-266, Gentrugge, Belgium.
(Controlled watershed experiments show large increases in low flows after cutting mountain hardwood stands in North Carolina; and appreciable decreases in flow after pines were planted on a small Ohio watershed.)

JOHNSON, F. M.
1961. Count down on deer. Wildlife in N. C. 25(8): 8-9.
(Lists cooperative wildlife projects carried on by U. S. Fish and Wildlife Service, U. S. Forest Service, military organizations, and state game agencies, and describes some wildlife census techniques.)

_____ and DOWNING, R. L.
1963. Preliminary investigations of deer census techniques applicable to the Southeast. Soc. Amer. Foresters Proc. 1962: 162-165.
(Census results from pellet and track counts and day and night drives in a 746-acre enclosure in Georgia.)

_____ LINDZEY, JAMES, and RIPLEY, T. H.
1962. Recent developments and needs in game and game habitat research in connection with pine site preparation. Fifteenth Ann. Conf. Southeast. Assoc. Game and Fish Commrs. Proc. 1961: 27-29.
(Recent developments in game and game habitat research relating to preparation of pine sites for planting.)

JONES, E. P., Jr.
1959. Wet site survival and growth. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 130, 2 pp.
(Survival and growth of planted yellow-poplar, eastern cottonwood, slash pine, and loblolly pine.)

JONES, E. P., Jr.
1961. Gum yields of planted slash pine. AT-FA Jour. 23(7): 9-10. Also in Naval Stores Rev. 71(2): 4-5, 19.
(Over a 3-year period a 17-year-old plantation produced gum yields comparable to wild stands with similar trees.)

1961. Wide spacing of slash pine produces early gum and saw-timber yields. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 169, 2 pp.
(Gross annual returns per acre per year were almost $19.00 for a 26-year-old stand planted at 15x15 feet in middle Georgia.)

1962. Profit from wasteland. Forest Farmer 21(11): 8.
(A case study of products removed and residual stand values in a 33-year-old slash pine plantation in the middle coastal plain of Georgia.)

1963. A test of direct seeding depths for slash and longleaf pine. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-5, 2 pp.
(Slash and longleaf pine seed should have a soil covering of less than one-half inch for best germination.)

JONES, LeROY
1960. Rapid moisture determination of tree seed with an electronic meter. U. S. Forest Serv. Tree Planters' Notes 43: 7.
(Describes electronic moisture meter which satisfactorily determines moisture content of tree seed.)

1961. Effect of light on germination of forest tree seed. Internatl. Seed Testing Assoc. Proc. 26(3): 437-452.
(Reports response of various species of forest tree seed to light, as well as work on length of photoperiod, intensity, and wave length.)

1962. Recommendations for successful storage of tree seed. U. S. Forest Serv. Tree Planters' Notes 55: 9-20.
(Recommendations for seed storage of approximately 79 species based on literature, observations, and research at the Eastern Tree Seed Laboratory.)

1962. Solving tree seed problems: the role of the Eastern Tree Seed Laboratory in southern forestry. South. Lumberman 205(2561): 133-134, illus.
(Describes services and activities of the Eastern Tree Seed Laboratory located near Macon, Georgia.)

1963. Effect of various pre-germination treatments on germination of black cherry seed. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-8, 2 pp.
(A 48-hour soak in a 0.1 percent citric acid solution prior to stratification increased germination from 57 to 89 percent.)

JONES, LeROY
1963. Germination of repellent-treated southern pine seed before and after storage. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-15, 4 pp.
(Arasan-75 treated seed of the four major southern pines can be stored up to 60 days at 38° F. and up to 20 days at room temperature with little loss of viability.)

_____ BARBER, J. C., and MABRY, J. E., Jr.
1962. (Abs.) Effect of methyl bromide fumigation on germination of southern pine seed. U. S. Forest Serv. Tree Planters' Notes 55: 25.
(Results show that both moisture content and dosage level are important in fumigating longleaf, slash, and loblolly pine seed.)

KEETCH, J. J.
1959. Unifying fire danger rating--progress toward a national system. U. S. Forest Serv. Fire Control Notes 20(3): 87-88.
(A short history of the project to develop a unified national fire danger system and a brief progress report.)

_____ and GLADSTONE, M. C.
1959. 1958 forest fires and fire danger in Maine and Rhode Island.
(Two separate reports containing tables and graphs analyzing forest fires and fire danger.)

KELMAN, ARTHUR, HODGES, C. S., and GARRISS, H. R.
1960. Needle blight of redcedar, Juniperus virginiana L. U. S. Dept. Agr. Plant Dis. Rptr. 44(7): 527-531.
(Symptoms and control of needle blight of redcedar, with a description of the causal fungus, Exosporium glomerulosum.)

_____ HODGES, C. S., and GARRISS, HOWARD
1962. Needle blight taking toll of Christmas trees. Research and Farming 20(3-4): 6.
(Symptoms and control measures of needle blight of eastern redcedar.)

KETCHAM, D. E., and BETHUNE, J. E.
1963. Fire resistance of South Florida slash pine. Jour. Forestry 61: 529-530.
(South Florida slash pine seedlings are more fire resistant than typical slash pine seedlings.)

KLAWITTER, R. A.
1959. Direct seeding hardwoods. Direct Seeding in the South Symposium. Duke Univ. School Forestry, 1959: 154-158.
(Results of direct seeding cherrybark, Shumard, and swamp chestnut oak at Charleston, S. C.)

_____
1959. Prescribed burning can pay its way. Forest Farmer 18(9): 9, 14-15, illus.
(Logging costs in loblolly pine were substantially reduced by controlling a hardwood understory with periodic winter fires.)

_____
1961. Seedling size affects early survival and height growth of planted cypress. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 155, 2 pp.
(Good survival and growth can be expected on first bottom sites with 1-0 cypress seedlings with stem diameters 0.25 inch and larger at the root collar.)

KLAWITTER, R. A., and STUBBS, JACK
1961. A reliable oak seed trap. Jour. Forestry 59: 291-292, illus.
(Specifications and sketches for constructing a paperboard seed trap for trapping acorns.)

_____ STUBBS, JACK, and JOHNSON, F. M.
1963. Tests of Arasan 75-Endrin 50W rodent repellent on Shumard and swamp chestnut oak acorns. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-4, 2 pp.
(Arasan 75-Endrin 50W will effectively repel rodents only when alternate food supplies are readily available.)

KNIPLING, E. B.
1963. Investigation of the Schardakow Method for the measurement of diffusion pressure deficit. Master of Science Thesis in Botany, Duke Univ.
(Improvement of a simple method for measuring water potential in leaves. The relation between water potential and water deficit in dogwood and sourwood is shown.)

KORMANIK, P. P., and HANEY, G. P.
1962. International $\frac{1}{4}$-inch board-foot volume table for shortleaf pine in the Virginia-Carolina Piedmont. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 178, 2 pp.
(Board-foot volumes by diameter breast high and total height to a top d.i.b. of 6 inches.)

_____ HANEY, G. P., and DORMAN, K. W.
1961. Loblolly pine of northern provenance may be best for planting in Virginia. U.S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 157, 2 pp.
(After 15 years, height of loblolly pine of North Carolina origin was greater than for stock from South Carolina, Mississippi, and Arkansas stocks. Stem form was very poor and only a small number would make good quality trees.)

_____ and HOEKSTRA, P. E.
1963. A comparison of loblolly, white, Virginia, and shortleaf pine in the Virginia Piedmont. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-11, 3 pp.
(Loblolly and white pine were taller than either Virginia or shortleaf pine after 16 growing seasons.)

_____ and LITTLE, E. L., Jr.
1962. Trees and shrubs of the Lee Experimental Forest. U. S. Forest Serv. Southeast. Forest Expt. Sta., 12 pp.
(Descriptions of the trees, shrubs, and vines found on the Forest.)

KOWAL, R. J.
1959. Biological control of balsam woolly aphid--will it succeed in the South? Forest Farmer 19(2): 6-7, illus.
(Discussion of balsam woolly aphid problem near Mt. Mitchell and description of efforts to control it by biological methods.)

_____
1959. Meeting the problem of tree-killing insects. Forest Farmer Manual 18(8): 38-46.
(Progress in improving detection and reporting of insect outbreaks and in research on control of important southern forest pests.)

KOWAL, R. J.

1959. Shade tree insects in the south--their increasing importance and control. Thirty-fourth Natl. Shade Tree Conf. Proc. 1958: 159-171.
(Damage caused to shade trees by some of our common forest insects; recommendations for control, primarily cultural in nature.)

1960. Insects commonly attacking forest trees and products in the South. Forest Farmer Manual 19(7): 101-105, illus.
(Description, recognition, and control of most destructive forest tree and products insects.)

1960. The problem of tree killing insects--and how to meet it. Forest Farmer Manual 19(7): 98-100.
(Detection and reporting of insect outbreaks. Research on control of important southern forest pests.)

1960. Southern pine beetle. U. S. Dept. Agr. Forest Pest Leaflet 49, 7 pp., illus.
(Distribution, hosts, evidence of attack, description of stages, life history, habits, and control.)

1961. Control of insects affecting shade trees and small woodlands. Pest Control 29(10): 9-10, 12-13, 16, 77-78, 80, illus.
(Many pest control operators are trained and equipped to control shade tree insects. General problems of control are discussed.)

1961. The future of insect control. Forest Farmer 21(1): 17, illus.
(New methods of insect control are being developed. These, plus improved chemical and natural methods, promise forest insect control in the future.)

1962. The elm spanworm--past, present, and future. Fifteenth Ann. Conf. Southeast. Assoc. Game and Fish Commrs. Proc. 1961: 178-185.
(History of elm spanworm outbreaks, research in chemical and biological control, future trend of the epidemic, and possibilities for control.)

KRAUS, J. F.

1959. Methoxone treatment of longleaf pine seed. Jour. Forestry 57: 650.
(High concentrations of methoxone were toxic to longleaf pine seed; low concentrations did not shorten length of time seedlings stayed in the grass.)

1960. Tree improvement research at Lake City, Florida. Alumni News, N. Y. State Ranger School 1959: 22-27.
(Summary of tree improvement work now under way at Lake City Research Center.)

KRAUS, J. F.
1963. The Olustee Arboretum--performance of 67 species of forest trees. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Paper SE-4, 47 pp.
(The Olustee Arboretum was started in north Florida in 1954 as an introduction and breeding garden of exotic pines used by the naval stores industry. Survival and growth are described. Only a very few species grew well.)

_____ and BENGTSON, G. W.
1960. The use of irrigation in forestry. In Forest soils. Eighth Ann. Forestry Symposium Proc., La. State Univ. School Forestry 1959: 96-105.
(Research problems and problems in practical application of forest irrigation.)

_____ and JOHANSEN, R. W.
1960. A test of gibberellic acid on longleaf pine. Jour. Forestry 58: 194.
(Negative results with treatment of longleaf seedlings with various concentrations of gibberellic acid.)

_____ and THOMAS, L. T.
1961. Results of trials of modified acrylic polymers in grafting slash pine. Jour. Forestry 59: 451.
(When tested on graft scions from trees 11 to 37 years old, it was found that TAT P.T.A. is a suitable substitute for grafting wax; TAT LOK seriously depressed graft survival.)

KRUEGER, D. W.
1961. Threshold values of relative humidity for large fires in Georgia. Ga. Forest Res. Paper 3, 5 pp., illus.
(77 percent of the large fires occurred on days with relative humidity of 25 percent or less.)

_____ and PACHENCE, A. M.
1961. Wind directions for prescribed burning in southeastern United States. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 131, 29 pp., illus.
(Westerly winds are more persistent than other directions at stations studied. Windroses show detailed wind persistency values for stations by months.)

KUHLMAN, E. G., and HENDRIX, F. F., Jr.
1962. A selective medium for the isolation of Fomes annosus. Phytopathology 52(12): 1310-1312, illus.
(A new agar medium permits direct isolation of Fomes annosus from infected host tissue. Associated saprophytic fungi and bacteria are inhibited on this medium, while F. annosus grows normally.)

_____ and HENDRIX, F. F., Jr.
1963. Phytophthora root rot of Fraser fir. U. S. Dept. Agr. Plant Dis. Rptr. 47(6): 552-553.
(Describes a new disease of Fraser fir in nurseries, with directions for preparing a selective medium for isolation of the fungus. Control measures are evaluated.)

_____ HENDRIX, F. F., Jr., and HODGES, C. S., Jr.
1962. Inoculation and colonization of stumps of Pinus echinata by Fomes annosus. (Abs.) Phytopathology 52(8): 739.
(Results of a large-scale stump inoculation test using three types of inoculum of Fomes annosus. Gives percentage of colonization and depth of penetration of stumps by the fungus.)

LANGDON, O. G.
1959. Site index curves for South Florida slash pine. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 133, 2 pp.
(Regression of logarithm of total height on reciprocal of age was computed and expressed in terms of site index at age 25 years.)

1959. Site preparation requirements for direct seeding of longleaf and slash pines. Direct Seeding in the South Symposium, Duke Univ. School Forestry 1959: 109-113.
(Discusses factors limiting initial stand establishment for direct seeding.)

1961. Yield of unmanaged slash pine stands in south Florida. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 123, 13 pp., illus.
(Cubic-foot volume and yield tables for slash pine stands in south Florida.)

1962. Ridge planting improves early growth of South Florida slash pine. Jour. Forestry 60: 487, illus.
(Combined results of two studies at 5 years showed that a slightly elevated ridge planting position had superior growth in both studies and better survival in one.)

1963. Growth patterns of Pinus elliottii var. densa. Ecology 44: 825-827.
(Diameter growth occurs over a period of 10 months, peaking in both spring and fall at about the time of the vernal and autumnal equinoxes.)

1963. Range of South Florida slash pine. Jour. Forestry 61: 384-385.
(Revision of a previously published range map shows that this species occurs inland in south-central Florida.)

LARSON, P. R., DUFFIELD, J. W., DORMAN, K. W., and others.
(Subcommittee on Forest Biology Committee.)
1962. The influence of environment and genetics on pulpwood quality: an annotated bibliography. TAPPI Monog. Series 24, 316 pp.
(A comprehensive review of world literature.)

LARSON, R. W.
1959. Timber in North Carolina. U. S. Dept. Agr. Forest Resource Rpt. 15, 24 pp., illus.
(Illustrated presentation of current timber supply trends, possible future needs, and problems that must be solved to increase timber supply.)

1959. Use of transects to measure low vegetative cover. Techniques and Methods of Measuring Understory Vegetation Symposium Proc. 1958: 48-54. Published jointly by U. S. Forest Serv. South. Forest Expt. Sta. and Southeast. Forest Expt. Sta.
(Describes uses, advantages, and disadvantages of various types of transects, including belt, strip, or line intercept method.)

LARSON, R. W.
1960. South Carolina's timber. U. S. Forest Serv. Southeast. Forest Expt. Sta. Forest Survey Release 55, 103 pp., illus.
(Illustrated presentation of current timber supply trends, possible future needs, and problems that must be solved to increase timber supply.)

_____ and BRYAN, M. B.
1959. Virginia's timber. U. S. Forest Serv. Southeast. Forest Expt. Sta. Forest Survey Release 54, 72 pp., illus.
(Statistics on forest and nonforest areas, timber volume, growth, mortality, and cut, with trends in forest area and timber volume between first and second surveys.)

_____ and GOFORTH, M. H.
1961. Florida's timber. U. S. Forest Serv. Southeast. Forest Expt. Sta. Forest Survey Release 57, 32 pp., illus.
(In the 24 years between the first and third surveys in Florida, forest land area decreased 11 percent. Total pine volume remained about the same, but pine sawtimber decreased 16 percent.)

_____ NICHOLS, A. C., and GOFORTH, M. H.
1961. Pine volume moves up in Southeast. Forest Farmer 21(3): 14-15.
(Comparisons between periodic surveys in the Southeast show that forest area is continuing to increase. Total pine volume is increasing slightly, but pine sawtimber volume continues to decrease.)

_____ NICHOLS, A. C., and GOFORTH, M. H.
1961. Timber trends in the Southeast. U. S. Forest Serv. Southeast. Forest Expt. Sta. Forest Survey Release 58, 16 pp., illus.
(Recent Forest Surveys show that the Southeast has slightly more forest area and total pine volume now than 10 years ago, but slightly less pine sawtimber.)

_____ and SPADA, BENJAMIN
1963. Georgia's timber. Southeast. Forest Expt. Sta., U. S. Forest Serv. Resource Bul. SE-1, 39 pp., illus.
(Forest-land area increased 21 percent in the 25 years between the first and third surveys in Georgia. Since 1936, softwood growing stock increased 19 percent and still shows a rising trend, while hardwood growing stock increased 26 percent but shows some leveling off since 1953. Although the productivity of Georgia's forest land has improved in recent years, it is still far below its potential.)

LEWIS, C. E.
1963. Early study results show application of rock phosphate boosts native forage. Fla. Cattleman and Livestock Jour. 27: 24.
(Herbage yield increased two and three times with treatments of 1 and 2 tons per acre of ground rock phosphate on both chopped and unchopped sites.)

LEWIS, C. E.
1963. Rock phosphate proves aid to native range plants. Fla. Cattleman and Livestock Jour. 28: 34.
(Phosphorus, calcium, and protein levels increased in native range plants growing on plots treated with 1 ton per acre of rock phosphate.)

LOTTI, THOMAS
1959. Selecting sound acorns for planting bottomland hardwood sites. Jour. Forestry 57: 923, illus.
(Identification of weeviled acorns of swamp chestnut, Shumard, and cherrybark oaks by visual characteristics.)

1959. A special fire plan for the Santee Experimental Forest. U. S. Forest Serv. Southeast. Forest Expt. Sta., 26 pp., illus.
(Analysis of such items as 10-year-fire occurrence and protection priorities; detailed action plan for maximum protection of a high-value area.)

1960. Silvical characteristics of Shumard oak. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 113, 10 pp., illus.
(Extent and climate of botanical range, edaphic and physiographic site conditions, reproductive and growth habits, ecology, plant and animal pests, and response to management.)

1960. Silvical characteristics of swamp chestnut oak. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 110, 8 pp., illus.
(Extent and climate of botanical range, edaphic and physiographic site conditions, reproductive and growth habits, ecology, plant and animal pests, and response to management.)

1960. The use of fire in the management of coastal plain loblolly pine. Soc. Amer. Foresters Proc. 1959: 18-20, illus.
(Results and conclusions of prescribed burning studies dating back to 1946 on Santee Experimental Forest.)

1961. The case for natural regeneration. In Advances in Southern Pine Management. Tenth Ann. Forestry Symposium Proc., La. State Univ. School Forestry 1961: 16-25.
(Annual seed production, seedling crops, and seedbed preparation in sawtimber stands of loblolly pine in the coastal plain and how these fit into a new regeneration technique called seed-in-place or seedlings-in-place.)

KLAWITTER, R. A., and LeGRANDE, W. P.
1960. Prescribed burning for understory control in loblolly pine stands of the coastal plain. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 116, 19 pp., illus.
(Over 10 years' study in use of prescribed burning on the Santee and Westvaco Experimental Forests in South Carolina.)

LOTTI, THOMAS, and LeGRANDE, W. P.
1959. Loblolly pine seed production and seedling crops in the lower coastal plain of South Carolina. Jour. Forestry 57: 580-581, illus.
(Five-year seed production in two 50-year-old stands and seed and seedling losses. One stand had annual summer prescribed burns.)

LUND, A. E., and TARAS, M. A.
1959. Kiln drying chemically treated scarlet oak and white oak lumber. Forest Prod. Jour. 9(11): 398-403.
(Indicates chemical treatment with salt can help minimize honeycomb degrade when high temperature and rapid drying schedules are used.)

McALPINE, R. G.
1959. Flooding kills yellow-poplar. Forest Farmer 19(3): 9, 13-14, illus.
(High mortality of yellow-poplar planting caused by flooding during growing season.)

_____
1959. Is there a future in cottonwood? Forest Farmer 18(12): 12-13, 16, 18.
(Reports on 3-year growth and survival of cottonwood plantings in Georgia Piedmont.)

_____
1959. Response of planted yellow-poplar to diammonium phosphate fertilizer. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 132, 2 pp.
(First-year height growth increased with increasing rates of application of diammonium phosphate (20-52-0).)

_____
1959. Yellow-poplar responds to fertilization. South. Lumberman 199(2489): 95-96, illus.
(Second-year measurements show widening gap between plots fertilized with diammonium phosphate and control plots.)

_____
1961. Hypoxylon tinctor associated with a canker on American sycamore trees in Georgia. U. S. Dept. Agr. Plant Dis. Rptr. 45(3): 196-198.
(Serious cankers developed on sycamores following a rather heavy thinning in a small bottomland stand.)

_____
1961. Yellow-poplar seedlings intolerant to flooding. Jour. Forestry 59: 566-568.
(Yellow-poplar seedlings were not affected by dormant season flooding, but mortality occurred after 4 days of flooding in May and after 3 days in June. All seedlings were killed after 2 weeks of flooding during the growing season.)

_____
1963. A comparison of growth and survival between sycamore seedlings and cuttings. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-9, 1 p.
(Sycamore seedlings survive better, and when fertilized, outgrow cuttings.)

McALPINE, R. G.
1963. Problems with cottonwood planted in the Georgia piedmont. U. S. Forest Serv. Tree Planters' Notes 57: 5-7.
(Discusses animal, insect, disease, and forest damage to planted cottonwood.)

_____ and JACKSON, L. W. R.
1959. Effect of age on rooting of loblolly pine air-layers. Jour. Forestry 57: 565-566, illus.
(Rooting was best in the youngest age classes and declined sharply with increasing age. None of the air-layers rooted on trees 17 and 20 years of age.)

_____ and REINES, MERVIN
1961. Photomicrographs by direct projection. Jour. Forestry 59: 771-772, illus.
(Techniques for using a microscope as a photographic enlarger to project the slide image directly to print paper.)

McGEE, C. E.
1959. Weight of merchantable wood with bark from planted slash pine in the Carolina Sandhills. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 128, 2 pp.
(Tables of green weight of wood with bark for trees by diameter and height classes to a fixed top outside bark of 2.0, 3.0, and 4.0 inches.)

_____
1961. Age of stock as a factor in survival and growth of longleaf seedlings. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 158, 2 pp.
(Planting large seedlings does not necessarily insure good survival and rapid height growth.)

_____
1961. Soil-site index for Georgia slash pine. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 119, 9 pp., illus.
(Site quality increases as thickness of A_1 horizon increases. Optimum height growth was found on sites with depth to a fine-textured horizon of 28 to 30 inches.)

_____
1963. A nutritional study of slash pine seedlings grown in sand culture. Forest Sci. 9: 461-469.
(Fresh weight, dry weight, and height growth appeared to maximize when the supply of N and K was greater than 125 ppm but less than 625 ppm.)

_____ and BENNETT, F. A.
1959. Cubic foot volume tables for slash pine plantations of the middle coastal plain of Georgia and the Carolina Sandhills. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 129, 2 pp.
(Cubic foot volumes inside bark and outside bark by diameter and height classes to fixed tops outside bark of 2.0, 3.0, and 4.0 inches.)

_____ and BENNETT, F. A.
1959. Site index curves for old-field slash pine plantations. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 127, 2 pp.
(Regression of logarithm of total height on reciprocal of age was computed and expressed in terms of site index at age 25 years.)

McGEE, C. E., and HATCHER, J. B.
1963. Deep-planting small slash pine on old field sites in the Carolina Sandhills. Jour. Forestry 61: 382-383.
(Deep planting improved survival. The greatest benefits were with the smallest planting stock.)

McGINNES, B. S., and RIPLEY, T. H.
1963. Evaluation of wildlife response to forest-wildlife management--a preliminary report. Soc. Amer. Foresters Proc. 1962: 167-171.
(Deer and turkey responses to forage clearings, waterholes, and improvement cuttings.)

McGREGOR, W. H. D., ALLEN, R. M., and KRAMER, P. J.
1961. The effect of photoperiod on growth, photosynthesis, and respiration of loblolly pine seedlings from two geographic sources. Forest Sci. 7: 342-348.
(Absolute and relative growth of long-day (15 hours) seedlings was greater than that of short-day (9.5 hours) seedlings. Photoperiod had no significant effect on rate of respiration.)

_____ and KRAMER, P. J.
1963. Seasonal trends in rates of photosynthesis and respiration of loblolly pine and white pine seedlings. Amer. Jour. Bot. 50: 760-765.
(Photosynthesis began in February; peaked in mid-July for white pine, and in mid-September for loblolly pine.)

McMINN, J. W.
1963. Precommercial thinning of slash pine. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-6, 2 pp.
(Thinning did not appreciably increase total merchantable wood production for a 29-year rotation.)

McNASSER, K. W.
1963. Forest fire research. U. S. Forest Serv. Fire Control Notes 24: 11-16.
(General discussion of work at the Southern Forest Fire Laboratory.)

MALOY, O. C., and MATTHEWS, F. R.
1960. Southern cone rust: distribution and control. U. S. Dept. Agr. Plant Dis. Rptr. 44(1): 36-39, illus.
(Cone rust, most prevalent on slash pine in northern Florida, was experimentally reduced by carefully timed sprays of ferbam.)

MARTIN, R. E.
1963. Thermal properties of bark. Forest Prod. Jour. 13(10): 419-426.
(Thermal conductivity, specific heat, and diffusivity were determined for 12 different pine and hardwood species.)

_____ and DAVIS, L. S.
1961. Temperatures near the ground during prescribed burning. Papers of the Mich. Acad. Sci. Arts, and Letters, Vol. XLVI, 1961 (1960 meeting).
(Time-temperature curves for prescribed fires in Michigan jack pine slash and Georgia palmetto-gallberry fuel. Head fires produced highest temperatures and rates of heat yield.)

MATTHEWS, F. R.
1961. Fomes annosus root rot--an increasing threat to southern pines. The Unit 90: 13-14.
(Outlines current status of annosus root rot in southern pine plantations and possible measures of control.)

1962. Pitch canker-tip moth damage association on slash pine seedlings. Jour. Forestry 60: 825-826.
(The tip moth may play an indirect role in spreading pitch canker fungus by establishing an infection court when it feeds on the shoots.)

1963. Southern cone rust. In Important forest diseases of mutual concern to member countries of the North American Forestry Commission. NAFC, FAO, pp. 27-28.
(Hosts, range, and economic impact of southern cone rust plus review of control measures.)

and MALOY, O. C.
1960. What to do about cone rust. Forest Farmer 19(4): 8, 14-15.
(Cone rust distribution, damage, symptoms, and control.)

MEGINNIS, H. G.
1959. Increasing water yields by cutting forest vegetation. Internatl. Assoc. Sci. Hydrol. Pub. 48: 59-68, illus.
(Symposium Hannover-Munden, 8-13 Sept., 1959.)
(Discusses increases in water yield by cutting forest vegetation; need for more basic knowledge of water use requirements of cover and of plant-soil-climatic factors which govern evapotranspiration.)

1960. Watershed management research--challenging career for young scientists. Ames Forester 47: 20-23, illus.
(Reviews knowledge, outlines research needs and opportunities for specialists from many disciplines.)

MERKEL, E. P.
1959. Insects causing seed losses in seed-production areas. Direct Seeding in the South Symposium. Duke Univ. School Forestry 1959: 32-35.
(Describes some of the major flower, cone, and seed insect pests affecting slash and longleaf pines.)

1961. A study of losses in the 1960 slash pine cone crop. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 164, 2 pp.
(An enumeration of the causes of seed losses on seven trees between the post-flowering and cone-maturation period.)

1962. The number of larval instars of Dioryctria abietella (D. and S.) (Lepidoptera: Phycitidae) in Florida. Canad. Ent. 94: 1005-1007, illus.
(Methods for determining larval instars of D. abietella and comparison of Florida and Canadian larvae head-capsule width data for this insect.)

MERKEL, E. P.

1962. The toxicity of insecticides to larvae of Dioryctria abietella in laboratory screening tests. Jour. Econ. Ent. 55: 682-684, illus.
(Laboratory procedures for evaluating toxicity of 13 insecticides to last-instar larvae of the coneworm, D. abietella, and concentration-mortality data.)

1963. Distribution of the pine seedworm, Laspeyresia anaranjada, with notes on the occurrence of Laspeyresia ingens. Ann. Ent. Soc. Amer. 56: 667-669.
(Data on the geographic distribution of both seedworm species, collected from 35 well-distributed sampling points throughout the range of typical slash pine and its south Florida variety.)

1963. A new southern pine tip moth. Jour. Forestry 61: 226-227.
(A brief summary of known hosts and geographic distribution of Rhyacionia subtropica Miller, which was described as a new species in 1960.)

_____ BEERS, W. L., and HOEKSTRA, P. E.

1959. Problems involved in the control of cone insects by aerial spraying. Fifth South. Conf. on Forest Tree Improvement Proc. 1959: 77-81.
(Discusses results of recent aerial spray tests for control of cone insects in South. Recommendations for future aerial spray experiments are considered.)

_____ and EBEL, B. H.

1961. Cone and seed insects and their control. Sixth South. Conf. on Forest Tree Improvement Proc. 1961: 137-138.
(Discusses general biology of the most important cone and seed insects that attack slash pine and results of control studies.)

METZ, L. J.

1959. The description and measurement of the forest floor. Techniques and Methods of Measuring Understory Vegetation Symposium Proc. 1958: 105-113, illus. Published jointly by U. S. Forest Serv. South. Forest Expt. Sta. and Southeast. Forest Expt. Sta.
(Discusses nomenclature and methods of measurement of components and characteristics of forest floor.)

1960. An American forester visits the Soviet Union. Forest Farmer 19(5): 10-11, 21.
(Author was member of 7-man forestry exchange team which visited the USSR during 1959.)

1960. The de la Howe old-growth forest in Piedmont shortleaf pine. Jour. Forestry 58: 807-809, illus.
(Describes history and condition, emphasizes the value of such bench marks for study of natural potential, soil-plant relations, and forest disease impacts.)

METZ, L. J.
1960. Hydrologic properties of southern forest soils. In Forest soils. Eighth Ann. Forestry Symposium Proc., La. State Univ. School Forestry 1959: 19-24.
(Properties of soil profile affecting movement and storage of water and importance of maintaining favorable hydrologic properties.)

_____ and DOUGLASS, J. E.
1959. Soil moisture depletion under several Piedmont cover types. U. S. Dept. Agr. Tech. Bul. 1207, 23 pp., illus.
(Compares soil moisture regime of pine, pine-hardwood, grass, and bare soil, particularly moisture depletion by depths to 66 inches over a 5-year period.)

_____ LOTTI, THOMAS, and KLAWITTER, R. A.
1961. Some effects of prescribed burning on coastal plain forest soil. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 133, 10 pp., illus.
(Annual and periodic fires over a 10-year period had no significant influence on the physical properties of the soil.)

MOORE, W. H., and MANNEY, R. B.
1962. Deer browse plants in loblolly and water oak-gum types of Piedmont Georgia. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 172, 2 pp.
(Species composition of understory vegetation is clearly related to forest types. Sampling techniques provide data on types most desirable as deer browse.)

_____ RIPLEY, T. H., and CLUTTER, J. L.
1961. Trials to determine relative deer range carrying capacity values in connection with the Georgia Forest Survey. Fourteenth Ann. Conf. Southeast. Assoc. Game and Fish Commrs. Proc. 1960: 98-104.
(Forest Survey sampling methods give measure of occurrence and qualitative difference in plant communities, and suggest silvical practices to provide high, long-term yields of forage.)

NAGEL, W. P.
1959. Forest insect conditions in the Southeast during 1958. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 100, 10 pp., illus.
(Discussion of survey and control activities.)

NELSON, R. M.
1959. Drought estimation in southern forest fire control. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 99, 22 pp., illus.
(Suggests tentative method for estimating soil moisture from measurements of mean temperature and precipitation.)

_____
1961. Burning index as a partial guide to air patrol in the South. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 118, 11 pp., illus.
(A basis for timing air patrol for maximum effectiveness and economy.)

NELSON, R. M.
1961. Some applications of danger ratings in forest fire control and management. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 129, 26 pp., illus.
(Describes major uses of fire danger ratings and presents methods of analyzing fire and fire danger records.)

NELSON, T. C.
1959. Silvical characteristics of mockernut hickory. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 105, 10 pp., illus.
(Extent and climate of botanical range, edaphic and physiographic site conditions, reproductive and growth habits, ecology, plant and animal pests, and response to management.)

1960. Relationship of growth to growing stock. pt. 2. Current research in the South. Fourth Conf. South. Indus. Forest Mangt. Proc. Duke Univ. School Forestry 1960: 52-62.
(Summarizes growth and yield studies currently under way in the southern states.)

1960. Silvical characteristics of bitternut hickory. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 111, 9 pp., illus.
(Extent and climate of botanical range, edaphic and physiographic site conditions, reproductive and growth habits, ecology, plant and animal pests, and response to management.)

1961. Loblolly pine growth as related to site, age, and stand density. Soc. Amer. Foresters Proc. 1960: 12-14.
(Merchantable cubic-foot growth phase of two studies involving loblolly pine growth in relation to site, age, and stand density in natural stands.)

1961. Silvical characteristics of pignut hickory. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 137, 10 pp., illus.
(Extent and climate of botanical range, edaphic and physiographic site conditions, reproductive and growth habits, ecology, plant and animal pests, and response to management.)

1961. Silvical characteristics of shagbark hickory. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 135, 11 pp., illus.
(Extent and climate of botanical range, edaphic and physiographic site conditions, reproductive and growth habits, ecology, plant and animal pests, and response to management.)

1963. Basal area growth of natural loblolly pine stands. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-10, 4 pp.
(Basal area growth is a function of stand density, density-age, and density-site interactions, and is described by a curvilinear form in relation to stand density and age.)

NELSON, T. C., and BENNETT, F. A.
1963. Growth and yield of slash pine plantations. Forest Farmer 23(2): 10-11, 17.
(Effects of age, site, and spacing on growth and yield of planted slash pine.)

_____ and BRENDER, E. V.
1963. Comparison of stand density measures for loblolly pine cubic-foot growth predictions. Forest Sci. 9: 8-14.
(Stahelin's percent of full stocking, total basal area, Reineke's stand density index, and initial merchantable cubic-foot volume are essentially equally effective measures of stand density for growth predictions.)

_____ CLUTTER, J. L., and CHAIKEN, L. E.
1961. Yield of Virginia pine. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 124, 11 pp., illus.
(Cubic-foot volume and yield tables for Virginia pine in the Piedmont.)

_____ LOTTI, THOMAS, BRENDER, E. V., and TROUSDELL, K. B.
1961. Merchantable cubic-foot volume growth in natural loblolly pine stands. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 127, 12 pp., illus.
(Cubic-foot growth of natural loblolly pine as related to age, site, stand density, and site-stand density interaction in thinned and unthinned stands.)

_____ TROUSDELL, K. B., BRENDER, E. V., and LOTTI, THOMAS
1963. Board-foot growth of loblolly pine as related to age, site, and stand density. Jour. Forestry 61: 120-123.
(Tables and equations are presented for the prediction of periodic annual board-foot growth in natural stands of loblolly pine.)

OLSON, D. F., Jr.
1959. Site index curves for upland oak in the southeast. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 125, 2 pp.
(New site index curves for white, northern red, southern red, scarlet, black, and chestnut oaks in Virginia-Carolina Piedmont and Southern Appalachian Mountains.)

_____ and DELLA-BIANCA, LINO
1959. Site index comparisons for several tree species in the Virginia-Carolina Piedmont. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 104, 9 pp., illus.
(Charts and equations for estimating site index of shortleaf pine, northern red oak, southern red oak, scarlet oak, black oak, and white oak when site index of yellow-poplar is available.)

_____ and DOYLE, H. J.
1959. Piedmont farm woodlands. Furniture, Plywood and Veneer Council of the N. C. Forestry Assoc., Inc., Rpt. 5, 18 pp., illus.
(Income, cost, and net profit from woodland operation on two small woodlots in North Carolina Piedmont.)

OSGOOD, E. A., Jr., and CLARK, E. W.
1963. Methods of sexing and sex ratios of the southern pine beetle, Dendroctonus frontalis Zimm. Canad. Ent. 95: 1106-1109.
(Of several sexual differences investigated, the combination of the prominence of the frontal tubercles and depth of the frontal groove in the male is the most useful criterion. The sex ratio is 1:1.)

PAGE, R. H.
1959. Georgia's hardwoods--problem or opportunity? Cross Tie Bul. 40(12): 37-39.
(Points out overabundance of low-quality hardwoods in Georgia and part that wood utilization research is playing in providing profitable outlets.)

_____
1961. Preservatives and turpentined utility poles. Forest Farmer 20(6): 11-12, 14, illus.
(Seasoned and steam-conditioned slash pine poles treated satisfactorily behind the scar faces; treatment of turpentined longleaf pine poles was erratic.)

_____
1961. Weight as a measure of volume for southern yellow pine timber. Forest Prod. Jour. 11(7): 300-302, illus.
(The prediction of volume of standing trees by weight would probably be no more accurate than the present method of predicting volume from diameter and merchantable length.)

_____
1962. Kerf chips--good or bad? South. Lumberman 205(2552): 43-44.
(How kerf chips are made, production at 19 southeastern pine mills, economics of production, and mill operators' reaction.)

_____
1963. Impact of naval stores on utilization of longleaf and slash pine timber. Forest Prod. Jour. 13(9): 361-364.
(Special emphasis on longleaf and slash pine for lumber, poles, and pulpwood.)

_____ and BOIS, P. J.
1961. Buying and selling southern yellow pine saw logs by weight. Ga. Forest Res. Council Rpt. 7, 8 pp., illus.
(For pine saw logs in Georgia, weight gives an accurate measure of cubic-foot volume and, within wider limits, a measure of board-foot volume.)

_____ and BOIS, P. J.
1963. Selling by weight--some guidelines. Forest Farmer Manual 22(7): 24-26.
(Major factors affecting the buying and selling of saw logs and pulpwood by weight. Weight-volume tables for several species are presented.)

_____ and PERRY, J. H., Jr.
1962. Pretreating turpentined longleaf pine poles to improve penetration and retention of creosote. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 152, 13 pp., illus.
(Compares 4 methods of pretreating scar-faces of longleaf pine.)

PAGE, R. H., and RODENBACH, R. C.
1962. Comparison of yield in clear and usable cuttings from different grades of maple lumber. Furniture, Plywood and Veneer Council of the N. C. Forestry Assoc., Inc., Rpt. 9, 2 pp.
(Compares yield of usable and clear cuttings from 1 Common and better with 2 Common hard and soft maple lumber at one N. C. furniture plant.)

_____ and SAUCIER, J. R.
1959. Compression wood. Coop. Pub. Ga. Forestry Comn. and U. S. Forest Serv. Southeast. Forest Expt. Sta. Forest Util. Serv. Release 20, 2 pp.
(Practical information for recognizing and avoiding deleterious effects of compression wood in pine lumber.)

_____ and WHITE, J. F.
1962. Break-through in sawmilling--exit sawdust. South. Lumberman 205(2561): 103-104, illus.
(Describes operation of a prototype model of the "Griffsaw.")

PATRIC, J. H.
1963. Forest experiment demonstration area on trail. Appalachian Trailway News 24(2): 21.
(A demonstration of multiple use resource management in action along the Appalachian Trail.)

PECHANEC, J. F.
1960. How mills can help improve the forest survey. APA Tech. Paper 60-P12, 5 pp.
(States and industries help speed up and strengthen forest surveys. Other cooperative steps are suggested.)

_____
1962. U. S. Forest Service builds new research lab on campus. The Cypress Knee, Univ. Ga. School Forestry, p. 34.
(Research facilities planned for utilization, disease, insects, and management.)

PERRY, J. H., Jr.
1962. Prescribed burning on the Olustee. Forest Farmer 21(9): 12-13, 17, 19.
(Experiences and techniques learned in nearly 20 years of prescribed burning at the Olustee Experimental Forest in north central Florida.)

PETER, R. K.
1959. New unitizing methods for parquet floors. Wood & Wood Products 64(4): 48, 56-57.
(Proposes and describes several new methods for unitizing parquet flooring that are adapted to fast production and mechanical handling.)

_____
1960. Firing charcoal kilns with the doors open. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 142, 2 pp.
(Open-door firing results in more nearly uniform ignition and can reduce coaling time as much as 24 hours.)

PETER, R. K., and BAMPING, J. H.
1962. Theoretical sawing of pine logs--a new technique for evaluating sawing methods. Forest Prod. Jour. 12(11): 549-557, illus.
(A method for theoretically sawing the same log an infinite number of times to obtain data for evaluating sawing methods.)

PHARIS, R. P., BARNES, R. L., and NAYLOR, A. W.
1962. Effects of nitrogen level, calcium level, and nitrogen source upon the growth and composition of loblolly pine. (Abs.) Plant Physiol. Proc. 37 (Sup.): xlix.
(Nitrogen content of foliage was greatest in urea seedlings, least in nitrate. Nitrogen source, however, was not a major influence in total nitrogen content of roots.)

POWERS, H. R., Jr.
1963. Disease and hardwood management. Forest Farmer 23(1): 15, 32-35.
(A review of forest management practices that reduce losses from several diseases of hardwoods.)

_____
1963. Fusiform rust and annosus root rot--the South's most serious plantation diseases. Soc. Amer. Foresters Proc. 1962: 34-36.
(Review of hosts, economic impacts, and control measures for rust and annosus root rot; also several research aspects on the biology of the fungi causing these diseases.)

_____ and BOYCE, J. S., Jr.
1961. Fomes annosus on slash pine in the Southeast. U. S. Dept. Agr. Plant Dis. Rptr. 45(4): 306-307.
(Annosus root rot was found most severe in thinned slash pine plantations; unthinned plantations, and natural stands in general, had less damage.)

_____ and BOYCE, J. S., Jr.
1963. Annosus root rot in eastern pines. U. S. Dept. Agr. Forest Pest Leaflet 76, 7 pp.
(Current status of information on hosts, range, symptoms, means of spread, economic impact, and control of annosus root rot.)

_____ and VERRALL, A. F.
1962. A closer look at Fomes annosus. Forest Farmer 21(13): 8-9, 16-17, illus.
(Reviews South-wide Fomes annosus survey and gives results and correlations between certain site and stand characteristics and annosus infection.)

RALSTON, C. W., and McGEE, C. E.
1962. Planting turkey oak sites with slash pine may not pay. Jour. Forestry 60: 719-720, 722, illus.
(Lands with a site index of 30 feet at 25 years, the average for deep-sand turkey oak areas, are submarginal for slash pine.)

REINES, M., and McALPINE, R. G.
1960. The morphology of normal, callused, and rooted dwarf shoots of slash pine. Bot. Gaz. 121(2): 118-124, illus.
(Individual needles are capable of callus formation and root development. Cortex and pitch contribute largely to callus formation but cambial cells and parenchyma also capable of proliferation.)

RENSHAW, J. F.
1961. Silvical characteristics of white basswood. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 136, 7 pp., illus.
(Extent and climate of botanical range, edaphic and physiographic site conditions, reproductive and growth habits, ecology, plant and animal pests, and response to management.)

REPPERT, J. N., HUGHES, R. H., and DUNCAN, D. A.
1963. Herbage yield and its correlation with other plant measurements. In Range research methods. U. S. Dept. Agr. Misc. Pub. 940, pp. 15-21.
(The applications and shortcomings of direct measures, indirect estimates, and combination of these two basic methods are reviewed.)

RIPLEY, T. H.
1960. Weights of Massachusetts quail and comparisons with other geographic samples for taxonomic significance. AUK 77: 445-447.
(Reports live weights by age and sex for a series of wild-trapped Massachusetts quail; and discusses possible validity of subspecific recognition.)

_____ 1962. Recreation impact on Southern Appalachian campgrounds and picnic sites. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 153, 20 pp., illus.
(Sampling of 42 developed camping and picnic sites in the Southern Appalachians suggests important management guides such as location, planning, and rehabilitation.)

_____ 1962. Tree and shrub response to recreation use. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 171, 2 pp.
(Conifers and hardwoods listed in order of decreasing ability to withstand impacts of recreation use, as gaged by disease infection, insect infestation, and decline.)

_____ 1963. The ups and downs of deer. Forest Farmer 22(6): 6-7.
(Charts the changes in deer populations brought about by changes in land use and suggests future action.)

_____ and CAMPBELL, R. A.
1959. The white-tailed deer--a blessing and a problem. Wildlife in N. C. 23(9): 14-15.
(Discusses opportunities and problems of managing hardwoods in Southern Appalachians for both timber and game.)

_____ and CAMPBELL, R. A.
1960. Browsing and stand regeneration in clear- and selectively-cut hardwoods. Twenty-fifth North Amer. Wildlife Conf. Trans. 1960: 407-415.
(Reports regeneration benefits from heavy cutting and considers problems in relation to deer browsing of reproduction.)

_____ JOHNSON, F. M., and MOORE, W. H.
1963. A modification of the line intercept method for sampling understory vegetation. Jour. Range Mangt. 16: 9-11.
(A technique for measuring changes in browse composition and density in woody understory browse.)

RIPLEY, T. H., JOHNSON, F. M., and THOMAS, W. P.
1960. A useful device for sampling understory woody vegetation. Jour. Range Mangt. 13: 262-263, illus.
(Describes a rod with leveling device for establishing vertical lines or planes of reference, and discusses various uses in understory sampling.)

_____ and McCLURE, J. P.
1963. Deer browse resources of north Georgia. Southeast. Forest Expt. Sta., U. S. Forest Serv. Resource Bul. SE-2, 20 pp.
(Inventory of the quantity, quality, and use of woody deer browse in 3.2 million acres of commercial forest land in north Georgia.)

_____ and McGINNES, B. D.
1961. Hunting and fishing recreation on Virginia's national forests. Va. Wildlife 22(10): 4-5.
(Discusses hunting and fishing on national forests of Virginia and reports, in popular form, pressure, kill, and game population-density relationship.)

ROBINSON, V. L.
1959. Pulpwood price trends in the Southeast. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 136, 2 pp. Also in Paper Trade Jour. 143(52): 22.
(Average prices paid in Southeast for pine pulpwood from 1945-1958; separate prices listed for rail wood, yard wood, truck wood, and weighted average for all types of delivery.)

_____
1961. Pulpwood price trends in the Southeast. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 163, 2 pp.
(The 1960 all-wood prices were $16.45 per cord for rough pine pulpwood and $13.60 per cord for hardwood. The most commonly reported price for pine chips was $6.50 per ton.)

_____
1962. 1961 pulpwood prices in the Southeast. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 181, 2 pp.
(All-wood prices were $16.55 per cord for rough pine pulpwood and $13.50 per cord for hardwood. Chips were $6.50 and $4.95 per ton for pine and hardwoods, respectively.)

_____ and NICHOLS, A. C.
1962. Southern pulpwood production, 1961. U. S. Forest Serv. Southeast. Forest Expt. Sta. Forest Survey Release 59, 26 pp., illus.
(Round pulpwood and pulp chips from wood residues, by pine and hardwood species groups and by State; also, roundwood by county.)

RODENBACH, R. C.
1960. Sources of lumber for furniture plants in North Carolina. Furniture, Plywood and Veneer Council of the N. C. Forestry Assoc., Inc., 5 pp., illus.
(Breakdown by states and species for 354 million feet purchased in U. S. in 1958. Foreign sources by species only.)

RODENBACH, R. C.
1963. Millwrighting--key to more accurately sawn lumber. Furniture, Plywood and Veneer Council of the N. C. Forestry Assoc., Inc., Rpt. 11, 8 pp.
(Over 50 percent of the mismanufactured hardwood lumber produced by 10 small circular sawmills was due to minor mill misalignments and errors.)

_____ and DOYLE, H. J.
1960. Thickness variation of lumber cut in 1959 by circular mills in North Carolina. Furniture, Plywood and Veneer Council of the N. C. Forestry Assoc., Inc., 9 pp., illus.
(One-third of all lumber received at N. C. furniture plants in 1959 was too thick to meet specifications, too thin, or otherwise miscut.)

_____ and OLSON, D. F., Jr.
1960. Grading yellow-poplar planting stock is important. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 147, 2 pp.
(For most yellow-poplar plantings the minimum root collar diameter should be at least 0.25 inch to insure good stocking.)

_____ and OLSON, D. F., Jr.
1962. Five-year survival and height growth of several planted hardwood species in the North Carolina Piedmont. Furniture, Plywood and Veneer Council of the N. C. Forestry Assoc., Inc., Rpt. 10, 5 pp.
(A majority of the 17 species tested in two demonstration arboretums showed good survival, but height growth was satisfactory on only a few species.)

ROMANCIER, R. M.
1960. Reduction of fuel accumulations with fire. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 143, 2 pp.
(Effects of repeated prescribed burns on depth and character of forest floor in Tidewater Virginia.)

_____
1961. Weight and volume of plantation-grown loblolly pine. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 161, 2 pp.
(Weight and volume of wood and bark by diameter and total height to top diameters of 3.6 inches and 2.0 inches inside bark.)

_____ and BRENDER, E. V.
1962. Management of small woodland holdings in the Georgia Piedmont, a 12-year report. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 151, 12 pp., illus.
(A 12-year case study of three woodlots, emphasizing growth and income.)

_____ and LeGRANDE, W. P.
1962. Glaze damage on the Santee Experimental Forest. South. Lumberman 205(2561): 99-100, illus.
(Describes loblolly damage and proposes classification to guide salvage cutting.)

ROTH, E. R.
1959. Heart rots of Appalachian hardwoods. U. S. Dept. Agr. Forest Pest Leaflet 38, 4 pp., illus.
(Describes important fungi causing basal, top, and trunk decay; methods given for reducing decay losses.)

1960. Plots demonstrate 16 years' loss from littleleaf. Jour. Forestry 58: 322-323.
(Almost all of 27 widely distributed plots showed heavy littleleaf losses in 16 years.)

HELLER, R. C., and STEGALL, W. A.
1963. Color photography for oak wilt detection. Jour. Forestry 61: 774, 776, 778.
(A study to determine whether oak wilt detection could be effectively and economically carried out by means of aerial color photography.)

HEPTING, G. H., and TOOLE, E. R.
1959. Sapstreak disease of sugar maple and yellow-poplar in North Carolina. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 134, 2 pp.
(The disease has not spread out of its original restricted range. Inoculations with causal fungus have killed both host species; natural spread and killing are slow.)

ROW, CLARK
1960. Soil-site relations of old-field slash pine plantations in Carolina Sandhills. Jour. Forestry 58: 704-707, illus.
(The site index of slash pine plantations can be estimated from their age, the depth to a fine-textured soil horizon, and the thickness of the A_1 horizon.)

ROWAN, S. J.
1960. The susceptibility of twenty-three tree species to black root rot. U. S. Dept. Agr. Plant Dis. Rptr. 44(8): 646-647.
(Twenty-two conifers and one hardwood rated for susceptibility to root rot by seedling tests in greenhouse.)

1961. The effectiveness of Eptam in controlling weeds in southern forest nurseries. U. S. Forest Serv. Tree Planters' Notes 48: 29-32.
(Four months of excellent weed control was obtained by using a combination of Eptam and mineral spirits; however, some stunting of pine seedlings was noted.)

and GOOD, J. M.
1961. The efficacy of postplanting applications of DBCP for control of Tylenchorhynchus claytoni in southern forest nurseries. (Abs.) Phytopathology 51(9): 645.
(Several dosage rates of DBCP were evaluated for nematode control in both spring and fall applications.)

RUCKER, T. W., and SMITH, W. R.
1961. Forced-air drying of lumber--research and experimental. Forest Prod. Jour. 11(9): 390-394, illus.
(Comparative results of drying magnolia in a commercial forced air-dryer and drying poplar in an experimental forced air-dryer.)

RUDOLF, P. O., CRITCHFIELD, W. B., HITT, R. G., ORR-EWING, ALLAN, and SQUILLACE, A. E.
1961. Society of American Foresters report on a study of seed certification conducted by the committee on forest tree improvement. Jour. Forestry 59: 656-661.
(Ninety-six replies to a questionnaire show opinions on need for and type of seed certification suitable to forest tree seed and how certification should be administered.)

RUEHLE, J. L.
1962. Histopathological studies of pine roots infected with lance and pine cystoid nematodes. Phytopathology 52(1): 68-71.
(Microscopic examinations of pine roots invaded by parasitic nematodes. Lance and pine cystoid nematodes were found to damage roots of slash and loblolly pine severely.)

_____
1962. Plant-parasitic nematodes associated with shortleaf pine showing symptoms of littleleaf. U. S. Dept. Agr. Plant Dis. Rptr. 46(10): 710-711.
(Two species of nematodes consistently found in healthy and diseased stands were twice as abundant in diseased stands.)

_____ and SASSER, J. N.
1962. The role of plant-parasitic nematodes in stunting of pines in southern plantations. Phytopathology 52(1): 56-68.
(Several parasitic species of nematodes were found associated with stunted loblolly and slash pine in plantations. Greenhouse inoculations showed that pine cystoid nematodes caused considerable root damage, but did not decrease growth as markedly as lance nematodes.)

RUMMELL, R. S.
1960. An abridged history of southern range research. Iowa State Jour. Sci. 34(4): 749-760.
(Cites progress in range management and wildlife habitat research.)

ST. GEORGE, R. A., JOHNSTON, H. R., and KOWAL, R. J.
1960. Subterranean termites, their prevention and control in buildings. U. S. Dept. Agr. Home and Gard. Bul. 64, 30 pp., illus.
(Subterranean termites, life history, habits; structural and chemical measures to prevent termite attack; methods for controlling infestations.)

SAUCIER, J. R., and MILLER, R. L.
1961. Deterioration of southern pine chips during summer and winter storage. Forest Prod. Jour. 11(8): 371-379, illus.
(Deterioration of chips in the open did not exceed deterioration of roundwood; outside pine chip storage in the South appears practical.)

_____ and PAGE, R. H.
1959. A directory of wood-using industries in Georgia. Coop. Pub. Ga. Forestry Comn. and U. S. Forest Serv. Southeast. Forest Expt. Sta., Ed. 2, 109 pp.
(Classifies Georgia's wood-using industries by location, type of operation, materials purchased, and products sold.)

SCHOPMEYER, C. S., and MALOY, O. C.
1960. Dry face of naval stores pines. U. S. Dept. Agr. Forest Pest Leaflet 51, 7 pp., illus.
(Symptoms, predisposing factors, prevention, and control of dry face.)

SCHULTZ, A. J.
1961. A second report on interplanted slash pine. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 154, 2 pp.
(Average tree size and volume production from interplants was smaller than from original planting and were judged failures.)

SHIPMAN, R. D.
1959. Silvical characteristics of winged elm. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 103, 7 pp., illus.
(Extent and climate of botanical range, edaphic and physiographic site conditions, reproductive and growth habits, ecology, plant and animal pests, and response to management.)

_____
1960. Survival and growth of graded longleaf pine nursery stock. Jour. Forestry 58: 38-39, 42, illus.
(The best survival of longleaf pine in the Carolina-Georgia sandhills results from planting grade 1 seedlings on either sands or sandy loams regardless of planting date.)

SLUDER, E. R.
1959. Growth and the effect of pruning in a stand of sycamore in the Southern Appalachians. South. Lumberman 199(2489): 145-146, illus.
(Pruning a natural stand of sycamore will result in maximum production of high-quality wood.)

_____
1960. Early results from a geographic seed source study of yellow-poplar. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 150, 2 pp.
(Seedlings of local source had significantly higher survival but not faster growth than others. Time of height growth initiation was correlated with length of growing season, date of last killing frost, and latitude of the source of seed.)

_____
1961. Exploratory studies on chemical control of unwanted hardwoods in the Southern Appalachians. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 165, 2 pp.
(Rhododendron, laurel, and sourwood sprouted profusely after being topkilled by sodium arsenite applied with a tree injector. Rhododendron sprouts can be controlled by spraying cut stumps with 2,4,5-T in oil.)

_____
1963. A white pine provenance study in the Southern Appalachians. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Paper SE-2, 16 pp.
(White pine seedlings of southern origin were taller on the average than seedlings of northern origin after 3 years in plantations on 3 sites in the Southern Appalachians.)

SLUDER, E. R., OLSON, D. F., Jr., and JARRETT, T. W.
1961. Tests on direct seeding of oak in the Piedmont and southern Appalachians of North Carolina. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 134, 12 pp., illus.
(White, northern red, and black oak acorns can be direct seeded in spring or fall if treated for weevil control and planted 1 to 2 inches deep in mineral soil.)

SMART, W. W. G., Jr., MATRONE, G., SHEPHERD, W. O., HUGHES, R. H., and KNOX, F. E.
1960. The study of comparative consumption and digestibility of cane forage (Arundinaria sp.). N. C. Agr. Expt. Sta. Tech. Bul. 140, 8 pp.
(Digestible nutrients in cane forage as affected by season, forest canopy and burning were determined using three separate recently developed indicator methods.)

SMITH, R. F.
1963. Preferential attack by Dendroctonus terebrans on Pinus elliottii. Jour. Econ. Ent. 56: 817-819.
(Incidence was markedly greater on previously attacked than on unattacked trees.)

SMITH, W. R.
1960. The impact of research on the pulp and paper industry. TAPPI 43(5): 30A, 32A, 34A, 36A.
(Research in the fields of forest management, wood procurement, processes, and special utilization of byproducts.)

1961. Building homes to withstand hurricane damage. Forest Prod. Jour. 11(4): 176-177, illus.
(When properly used, wood is the best material known for the construction of homes in hurricane and other storm areas.)

1961. Is forced air-drying a part of your future? South. Lumberman 203(2537): 131-133, illus.
(Research results on forced air-drying by the Southeastern Forest Experiment Station.)

1961. The structure and properties of wood as related to utility poles. South. Atlantic Wood Pole Conf. Proc. 1961: 11-18.
(Wood characteristics and properties directly related to utilization of wood for poles, with special reference to southern pine.)

1961. Wood seasoning. Indus. Woodworking 13(9): 14-15.
(Some basic concepts in moisture control in wood during seasoning.)

1962. The structure and properties of wood as related to utility poles. Tenn. Valley Wood Pole Conf. Proc. 1962: 12-23.
(Properties of wood, growth, abnormal wood, pole classes, and relation of defects and moisture content to poles.)

SMITH, W. R.
1962. Wood against the March northeaster. Forest Prod. Jour. 12(9): 16A, illus.
(Compares damage from a northeaster to homes built of wood with those built of masonry blocks and other material.)

1963. The hickory task force--promotional success. South. Lumberman 207(2585): 101-102.
(Story of a group dedicated to the proper and full use of this species where appropriate.)

SOLOMON, J. D.
1962. Characters for determining sex in elm spanworm pupae. Jour. Econ. Ent. 55: 269-270, illus.
(Characters found useful in distinguishing the sex of elm spanworm pupae are location of the genital opening, elevation of the antennae, color, size, and a behavioral difference. Location of genital opening was the most reliable character for separating sexes.)

SOUTHEASTERN FOREST EXPERIMENT STATION
1959. Annual report for 1958. 77 pp., illus.
(Highlights of the Station's research results.)

1960. Annual report for 1959. 92 pp., illus.
(Highlights of the Station's research results.)

1961. Annual report for 1960. 74 pp., illus.
(Highlights of the Station's research results.)

1962. Annual report for 1961. 81 pp., illus.
(Highlights of the Station's research results.)

1963. Annual report for 1962. 66 pp., illus.
(Highlights of the Station's research results.)

SPEERS, C. F.
1959. A portable field cage for insects. Coop. Econ. Insect Rpt. 9(16): 297-299, illus.
(Plans for cage for use in laboratory or easily transported and quickly erected over a plant or around the stem of a tree to almost any height.)

1962. Fraser fir seed collection, stratification, and germination. U. S. Forest Serv. Tree Planters' Notes 53: 7-8.
(Germination increased the longer cone collections were delayed. Stratification increased speed but not amount of germination.)

and SCHMIEGE, D. C.
1961. White grubs in forest tree nurseries and plantations. U. S. Dept. Agr. Forest Pest Leaflet 63, 4 pp., illus.
(Distribution, hosts, evidence of attack, description of stages, life history, habits, and control.)

SQUILLACE, A. E.

1962. Breeding for high-gum yield in slash pine. Naval Stores Rev. 72(9): 7, 17.
(Selection and controlled crossing have created a strain with over twice the average yield.)

_____ and BENGTSON, G. W.

1961. Inheritance of gum yield and other characteristics of slash pine. Sixth South. Conf. on Forest Tree Improvement Proc. 1961: 85-96.
(For 15-year-old plantation trees, heritability percents as determined by components of variance methods for traits in cross- and wind-pollinated progenies were calculated.)

_____ and BINGHAM, R. T.

1960. Heritability of juvenile growth rate in western white pine. (Abs.) Soc. Amer. Foresters Proc. 1959: 40.
(Techniques used to estimate heritability and estimating gain under various tree improvement approaches.)

_____ and DORMAN, K. W.

1960. Selective breeding of slash pine for high oleoresin yield and other characters. (Abs.) IX Internatl. Bot. Cong. Proc. 1959: 375.
(Inherent variation has been found in oleoresin yield, oleoresin viscosity, and tracheid length. Selection within the species for these traits is feasible.)

_____ and DORMAN, K. W.

1961. Selective breeding of slash pine for high oleoresin yield and other characters. In Recent Advances in Botany, Section IV: 1616-1621. Univ. Toronto, Toronto, Ontario, Canada.
(Eleven-year-old progeny were "micro-chipped" and yields of gum were related to parent gum-yielding characteristics.)

_____ ECHOLS, R. M., and DORMAN, K. W.

1962. Heritability of specific gravity and summerwood percent and relation to other factors in slash pine. TAPPI 45(7): 599-601.
(In 14-year-old trees heritability of specific gravity was 21 to 56 percent and in clones 73; summerwood percent was 8 to 56 and 48, respectively.)

_____ and KRAUS, J. F.

1959. Early results of a seed source study of slash pine in Georgia and Florida. Fifth South. Conf. on Forest Tree Improvement Proc. 1959: 21-34.
(Seed collected from an apparently optimum climatic zone seems to be moderately superior even when planted in other climates within the range of the species.)

_____ and KRAUS, J. F.

1963. The degree of natural selfing in slash pine as estimated from albino frequencies. Silvae Genetica 12(2): 46-50.
(Natural selfing for 11 trees varied from 0 to 27 percent, 9 of the trees showed 5 percent or less selfing, while 2 of them showed 23 to 27 percent, respectively.)

SQUILLACE, A. E., and KRAUS, J. F.
1963. Effects of inbreeding on seed yield, germination, rate of germination, and seedling growth in slash pine. Forest Genetics Workshop Proc., South. Forest Tree Improvement Com. Pub. 22, pp. 59-63.
(Sound seed yields, germination, rate of germination, and first-year total height decreased with increasing intensity of inbreeding.)

_____ and SILEN, R. R.
1962. Racial variation in ponderosa pine. Soc. Amer. Foresters, Forest Sci. Monog. 2, 27 pp.
(Analyses of two studies--one of 30 and the other 45 years' duration--verify apparent differences in growth rate, and correlate them with geographic and climatic factors.)

STOREY, T. G., and MERKEL, E. P.
1960. Mortality in a longleaf-slash pine stand following a winter wildfire. Jour. Forestry 58: 206-210, illus.
(Extent of mortality according to classes of crown and stem injury.)

_____ and PACHENCE, A. M.
1963. An analysis of 1961 forest fires and fire danger in Georgia. Ga. Forest Res. Paper 15, 30 pp.
(Tabular and graphic presentation of fire statistics by seasons, areas, and causes.)

_____ WENDEL, G. W., and ALTOBELLIS, A. T.
1959. Testing the TBM aerial tanker in the Southeast. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 101, 25 pp., illus.
(Pattern sizes and rates of slurry application for half load and full load TBM drops in a variety of fuel types in Georgia and North Carolina.)

STUBBS, JACK
1962. Wetland forests. Forest Farmer 21(11): 6-7, 10-13, illus.
(Description, opportunities, and problems of wetland forests in the Atlantic coastal plain.)

_____
1963. Planting hardwoods on the Santee Experimental Forest. South. Lumberman 207(2585): 135-136, 138.
(Fifth-year survival and growth for planted yellow-poplar, white ash, swamp chestnut oak, Shumard oak, and cherry-bark oak in the Carolina coastal plain.)

_____
1963. Survival and growth of sweetgum, Shumard oak, and spruce pine planted on a creek bottom site in the Carolina coastal plain. Jour. Forestry 61: 386-388.
(Sweetgum survival and growth was superior to that of Shumard oak or spruce pine.)

SWIFT, L. W., Jr., and VAN BAVEL, C. H. M.
1961. Mountain topography and solar energy available for evapotranspiration. Jour. Geophys. Res. 66(8): 2565.
(A southern slope in the southern Appalachians may receive twice as much solar radiation in midwinter as a similar northern slope.)

SWOFFORD, T. F.
1960. Dewinging damage to slash pine seed. U. S. Forest Serv. Tree Planters' Notes 42: 3.
(Scarification injury during dewinging may be more harmful to seed of low germination vigor than to seed of high germination vigor.)

1960. The effect of air drying of cones upon seed germination. U. S. Forest Serv. Tree Planters' Notes 43: 3-4.
(Deterioration of seed due to prolonged air drying was greatest for longleaf pine. Loblolly pine seed deterioration was intermediate between longleaf and slash pine.)

TALERICO, R. L., and HEIKKENEN, H. J.
1962. Stem injury to young red pine by the European pine shoot moth. Jour. Forestry 60: 403-406, illus.
(Describes the type and amount of injury to young red pine after severe infestation by the shoot moth and a method for identifying past shoot moth outbreaks.)

TARAS, M. A.
1961. Circular slide rule for calculating wood moisture content. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 125, 6 pp., illus.
(When green weight and ovendry weight is known, moisture can be read directly from this slide rule.)

and HUDSON, MONIE
1959. Seasoning and preservative treatment of hickory crossties. U. S. Forest Serv. Southeast. Forest Expt. Sta. Hickory Task Force Rpt. 8, 24 pp., illus.
(Compilation of six years work on seasoning and treatability of hickory crossties by various railroads, schools, treating companies, and public agencies.)

and WAHLGREN, H. E.
1963. A comparison of increment core sampling methods for estimating tree specific gravity. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Paper SE-7, 16 pp.
(Procedure, data analysis, and results of a study in slash and longleaf pine.)

TAYLOR, D. F.
1963. Buildup and burn. Forest Farmer 23(10): 9-10.
(Short- and long-term weather factors in the extreme fire season of the spring of 1963 in the South.)

1963. Mortarboard psychrometer. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Paper SE-5, 12 pp.
(Construction and operation of a simple, inexpensive device for estimating fine fuel moisture.)

1963. Weather and fire control management. Soc. Amer. Foresters Proc. 1962: 58-60.
(Traces history of weather's use in fire control management, parallelling its development with general meteorology growth. Lists productive methods of fire-weather research.)

TAYLOR, D. F., and PACHENCE, A. M.
1963. An analysis of 1962 forest fires and fire danger in Georgia. Ga. Forest Res. Paper 18, 31 pp.
(Annual tabulation and graphs of fire statistics by seasons, areas, and causes and short-term trends based on 4 years' data.)

TODD, A. S., Jr., and NICHOLS, A. C.
1960. 1959 pulpwood production in the South. U. S. Forest Serv. Southeast. Forest Expt. Sta. Forest Survey Release 56, 23 pp., illus.
(Production of round pulpwood and pulp chips from wood residues by pine and hardwood species groups and by State; also, production of roundwood by county.)

_____ and YOHO, J. G.
1962. Forestry in the southern economy. Jour. Forestry 60: 694-704, illus.
(Forest products contribute $3.9 billion a year to the economy of the South, ranking second only to textiles in employment provided and value added by manufacture.)

TROUSDELL, K. B.
1959. Site treatment reduces need for planting at loblolly harvest time. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 102, 11 pp., illus.
(Loblolly pine regenerates naturally provided seed trees are adequate, harvest takes place in moderately good seed year, soil is scarified, and hardwoods are controlled.)

_____
1960. Forest planting practices are often ineffective. Jour. Forestry 58: 718-719.
(In plantings on forest areas, natural pine regeneration often makes the planning ineffective and unnecessary.)

_____
1963. Loblolly pine regeneration from seed. Jour. Forestry 61: 441-444.
(Cost and effect of controlled burning, disking, and hardwood control on loblolly pine regeneration in the Atlantic coastal plain.)

_____ DORMAN, K. W., and SQUILLACE, A. E.
1963. Inheritance of branch length in young loblolly pine progeny. Southeast. Forest Expt. Sta., U. S. Forest Serv. Res. Note SE-1, 2 pp.
(The ratio of crown width to tree height varied significantly between progeny of individual trees and between progeny of a group of wide-crowned trees and a group of slender-crowned trees. Height growth varied, also.)

_____ and WENGER, K. F.
1963. Some factors of climate and soil affecting establishment of loblolly pine stands. Forest Sci. 9: 130-136.
(The number of 1-year-old seedlings is directly related to the seed available and the April-through-June rainfall. Stocking is also affected by soil texture and seedbed preparation.)

VANHAVERBEKE, D. F., and BARBER, J. C.
1961. Less growth and no increased flowering from changing slash pine branch angle. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 167, 2 pp.
(No increase in flowering was noted from changing branch angle. Branch elongation decreased as branch angle increased.)

VICK, C. B.
1960. Tension wood. Coop. Pub. Ga. Forestry Comn. and U. S. Forest Serv. Southeast. Forest Expt. Sta. Forest Util. Serv. Release 22, 2 pp.
(How to recognize tension wood in lumber and veneer so that it can be discarded in precision or quality manufacture.)

VIMMERSTEDT, J. P.
1959. Site index curves for Southern Appalachian white pine plantations. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 131, 2 pp.
(Regression of logarithm of total height on reciprocal of age was computed and expressed in terms of site index at age 25 years.)

1961. Cubic-foot volume tables for Southern Appalachian white pine plantations. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 162, 2 pp.
(Cubic-foot volumes inside bark and outside bark by diameter and total height to 3.0 and 4.0 inches top diameter outside bark.)

1962. Southern Appalachian white pine plantations: site, volume, and yield. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 149, 13 pp., illus.
(Site index curves, cubic-foot and board-foot tables for volume and yield.)

WAHLENBERG, W. G.
1960. Loblolly pine. Duke Univ. School Forestry, Durham, N. C. 603 pp., illus.
(Comprehensive monograph on use, ecology, regeneration, protection, growth, and management of loblolly pine, summarizing author's personal experience plus review of nearly 1,500 articles.)

WALKER, L. C., and BRENDER, E. V.
1959. Planting following prescribed fire. Jour. Forestry 57: 123-124.
(Planting immediately after a winter burn can be an effective way to convert brush to good pine stocking.)

WATT, R. F., and McGREGOR, W. H. D.
1963. Growth of four northern conifers under long and natural photoperiods in Florida and Wisconsin. Forest Sci. 9: 115-128.
(Two-year seedlings grown in Florida were equal to 2-1 transplants grown in the Lake States.)

WEBB, C. D.
1963. Juvenile-mature tree relationships. Seventh South. Conf. on Forest Tree Improvement Proc. 1963: 55-58.
(Selection for mature characteristics on the basis of juvenile performance cannot be as accurate as selections based on the mature tree. Yet, indications are that certain time-saving and essential information can be obtained from juvenile development. Resistance to certain diseases and insects and to drought can be evaluated during the juvenile stage. Other components of volume per acre, such as height, diameter, form class, and competitive ability will require a longer period of time. Traits such as straightness and wood specific gravity can be tested in young trees. Other traits of wood will require evaluation at 8 to 10 years of age or later.)

WELLS, C. G.
1961. Underplanting tests in pine stands. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 160, 2 pp.
(Underplanting yellow-poplar, northern red oak, and green ash was successful in 19-year-old loblolly pine plantation, but eastern redcedar planting was unsuccessful.)

_____ and COREY, R. B.
1960. Elimination of interference by phosphorus and other elements in the flame photometric determination of calcium and magnesium in plant tissue. Soil Sci. Soc. Amer. Proc. 24(3): 189-191.
(A rapid, accurate flame photometric method was devised for determination of Ca and Mg in plant tissue. Results agreed well with AOAC methods.)

_____ and METZ, L. J.
1963. Variation in nutrient content of loblolly pine needles with season, age, soil, and position on the crown. Soc. Amer. Soil Sci. Proc. 27(1): 90-93.
(Needles of the first growth whorl of the season at the top of the crown should be sampled in August and September of the first growing season for P; from December through March for K, Ca, and Mg; and from June through September of the second growing season for N.)

WENDEL, G. W.
1960. Fuel weights of pond pine crowns. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 149, 2 pp.
(Formula for estimating the weight of foliage and branchwood according to tree diameter.)

_____ and STOREY, T. G.
1962. Seasonal moisture fluctuations in four species of pocosin vegetation. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 147, 9 pp., illus.
(Differences in moisture content of common gallberry, redbay, swamp cyrilla, and switch cane by species, site, time, and water table height.)

_____ STOREY, T. G., and BYRAM, G. M.
1962. Forest fuels on organic and associated soils in the coastal plain of North Carolina. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 144, 46 pp., illus.
(Description of fuels in the coastal region and how to estimate their fire blowup potential.)

WENGER, K. F.
1960. Research charts Florida's forestry course. Forest Farmer 19(6): 16-17, 35-36, illus.
(Reviews forest research program of all agencies in Florida.)

_____ 1961. Some aspects of combining naval stores production and timber growing. The Unit 90: 15-16.
(Short-term methods of gum extraction in which trees are worked intensively fit well in timber management plans.)

WHEAT, R. W., ROLLINS, E. L., LEATHERWOOD, J. M., and BARNES, R. L.
1963. Studies on the cell wall of Chromobacterium violaceum: The separation of lipopolysaccharide and mucopeptide by phenol extraction of whole cells. Jour. Biol. Chem. 238 (1): 26-29.
(Chromobacterium violaceum was separated by aqueous phenol extraction into aqueous soluble, phenol-soluble, and phenol-insoluble fractions.)

WHISNANT, H. H., and OLSON, D. F., Jr.
1959. A planting bar extension for setting large-rooted seedlings. U. S. Forest Serv. Tree Planters' Notes 36: 6-7, illus.
(How to make and use a sheet metal extension on a standard planting bar when larger holes are needed in hand planting.)

WHITEHEAD, T. H., and SHERRILL, R. W.
1961. Wood charcoal from a cinder block kiln: a physicochemical study. Forest Prod. Jour. 11(8): 336-339, illus.
(A study of adsorption and desorption properties of several types of charcoal made in cinder block kilns.)

WILHITE, L. P.
1961. Effects of site preparation: possible consequences and dangers. Assoc. South. Agr. Workers Proc. 1961: 146.
(Properly prescribed site preparation should result in profits that more than offset costs, and benefits that far outweigh detrimental consequences.)

_____ 1961. Recent advances in site preparation techniques. Eleventh Ann. Forestry Symposium Proc., La. State Univ. School Forestry 1961: 26-33.
(Recent advances in pyric, chemical, and mechanical site preparation techniques for the regeneration of southern pines are given.)

_____ and HARRINGTON, T. A.
1960. Site preparation research in the flatwoods. South. Lumberman 201(2513): 151-152, illus.
(Describes cooperative site preparation study in southeast Georgia and northeast Florida.)

YATES, H. O., III
1960. The Nantucket pine moth, a literature review. U. S. Forest Serv. Southeast. Forest Expt. Sta. Paper 115, 19 pp., illus.
(Nomenclature, distribution, hosts, biology, damage, and control.)

YATES, H. O., III
1962. Influence of tip moth larvae on oleoresin crystallization of southern pines. U. S. Forest Serv. Southeast. Forest Expt. Sta. Res. Notes 174, 2 pp.
(Rhyacionia larval activity causes accelerated resin crystallization of loblolly and shortleaf pines but not of longleaf and slash pines.)

_____ and BEAL, R. H.
1962. Nantucket pine tip moth. U. S. Dept. Agr. Forest Pest Leaflet 70, 4 pp., illus.
(Injury, hosts, distribution, life history, description, and control of Nantucket pine tip moth in the United States.)

YOUNG, C. E., Jr., AULD, I. D., Jr., and GASKINS, RUDOLPH
1962. An efficient process for making wire marking pins. U. S. Forest Serv. Tree Planters' Notes 53: 25-26.
(One-half to three-fourths of the time involved in making pins by the old conventional means can be saved by the procedure outlined.)

ZAK, BRATISLAV
1959. Littleleaf disease of shortleaf pine (Pinus echinata Mill.). (Abs.) IX Internatl. Bot. Cong. Proc. 2: 440-441.
(Littleleaf is usually associated with poorly drained soils. It results from a combination of root killing by the soil fungus Phytophthora cinnamomi, poor soil aeration, and low soil fertility.)

_____
1961. Aeration and other soil factors affecting southern pines as related to littleleaf disease. U. S. Dept. Agr. Tech. Bul. 1248, 30 pp., illus.
(Littleleaf disease is attributed to root injury by Phytophthora cinnamomi in heavy and wet soils, aggravated by poor soil aeration and low soil fertility.)

_____
1962. Direct isolation of fungal symbionts from pine mycorrhizae. (Abs.) Phytopathology 52(1): 34.
(Describes method of isolating fungal component directly from mycorrhizal roots with recovery depending on type and pH of medium.)

_____ and BRYAN, W. C.
1963. Isolation of fungal symbionts from pine mycorrhizae. Forest Sci. 9: 270-278.
(Describes techniques which permitted successful isolation of fungal symbionts directly from mycorrhizae of southern pines, and gives results.)

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